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"I cannot help plead to my countrymen, at every opportunity, to cherish all that is manly and noble in the military profession, because Peace is enervating and no man is wise enough to foretell when soldiers may be in demand again."—SHERMAN.

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THE UTILIZATION OF NATIVE TROOPS IN OUR
FOREIGN POSSESSIONS.

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OUR foreign possessions, great and small, have increased to such an extent, that they now embrace not only Cuba, Porto Rico, and the Philippines, but also the Hawaiian group, Guam and Tutuita. But the last three are so peaceful and prosperous internally, that the question of native troops there, need not to be considered.

Cuba, too, can hardly be longer classed as one of our possessions. With the granting of autonomy has come a gradual withdrawal of United States troops from within her borders; and although, under certain conditions, it might be necessary to reoccupy Cuba with our forces, the question of the use of native Cubans as United States soldiers is not a pertinent one at present. The question of the organization of a native force for home-defense, is for the Cuban Congress to determine.

These island dependencies being eliminated, the scope of the discussion is narrowed down to the use of native troops in Porto Rico and the Philippines; and, with similar view of the situation, the Army Bill* which became a law on February 2d,

* See appendix for text of the Army Bill, relating to native troops.

1901, provides for provisional native troops in these two insular possessions only.

In Porto Rico, the formation of a regiment of native Porto Ricans, was begun early in the occupation of the island, and is no longer in the experimental stage. Its organization was prompted by considerations which will, in a lesser degree, appear later in the discussion of the use of native troops in the Philippine Archipelago. But in Porto Rico, the necessity for such troops, and the problems of organization, have been simplified by the high intelligence of the Porto Ricans, their good-will towards the United States and things American, and the salubrious climate which the island enjoys. Officered by Americans, the regiment is described as a fine body of troops, taking great pride in their organization, and exhibiting marked efficiency and zeal in the performance of military duty. In their recent appearance before the public, at the Presidential Inaugural Ceremonies, during the present year, they received universal praise for their military bearing, drill, and excellent discipline. More recent press despatches from Porto Rico, state that the natives lend themselves readily to the conditions of military life, and the troops are obedient and subordinate in the highest degree.

The disposition of the Porto Ricans is such that there is likely to be no great need of American troops among them, except for manning fortifications; and the Provisional Porto Rican regiment, authorized by Congress, will be amply sufficient to cope with such local disturbances as may possibly arise.

It is in the Philippines that the question of native troops assumes most importance, and at the same time is rendered most complex by existing conditions.

It is in the Philippines that we have encountered the most stubborn resistance, and received the greatest losses from wounds and disease; while the financial aspect of army expenditures has assumed alarming proportions. If the use of native troops would benefit us at all, it is in the Philippines that such results would be most appreciated and felt.

To the casual reader, unacquainted with military service in the tropics, the question may occur as to just why the question of native troops is so important. We now have a Regular army

somewhat commensurate with our growing commercial and political importance in the family of nations. We have little difficulty, if any, in securing recruits of American nationality for service abroad; and the high efficiency and decisive results obtained by our Regulars during the past three years of campaigning in Cuba, Porto Rico, and the Philippines, cannot be questioned.

But the more an American travels in the Orient, the more he realizes that our country is indeed an amateur in the colonizing business. And setting aside all questions of national expediency, we would do well to set about organizing native forces, if for no other reason than that the veteran colonizers of the old world have found them absolutely necessary to permanent success. Great Britain, the greatest colonizer the world has ever seen, has made brilliant use of her Indian, Beluchistan, Egyptian, Assyrian, and Soudanese troops; and France is following suit with her Algerian and Chinese forces. Nor have we in the past disdained to use native against native. The almost interminable raids of the Apache Indians might have dragged along for years, had we not enlisted the offices of friendly Apache scouts. And likewise farther north, the wars of the Sioux were brought to a close by utilizing the services of their hereditary enemies, the Crows and Cheyennes.

It has been said that after the fall of Manila, the so-called army of Aguinaldo could have been enlisted in the United States service, if we had realized, at that time, the importance of such a measure, and made proper overtures to that end. Whether this be true or not, it would seem now, after a war which has taxed our resources to the utmost, that every question of economic, military, and political expediency, should urge us to hasten the organization of native forces in the Philippines.

ECONOMY.

1. *Acclimatization and health.*—In the everyday discussion of tropical service, few people realize the enormous expense occasioned by the enlistment, equipment, training, and transportation abroad, of a single soldier of our army. Our government does nothing by halves, and believes that the American soldier is deserving of the best. Hence, rightly, no expense is spared to make the soldier contented, and the foreign officers

who inspected our quartermaster and commissary departments in China, could not conceal their amazement at the luxuries which our soldiers enjoyed at the hands of a beneficent government. We might have replied that it costs a good deal to have the best soldiers in the world, but we prefer that kind to the European variety.

Having, at great expense, been transferred to his destination in the Orient, the permanent loss of a soldier by death or total disability, or his temporary loss to the fighting force through sickness or wounds,—viewing the matter merely as a question of dollars and cents, is an immense item in the economy of the army of occupation, as well as a mighty factor in the efficiency of its component parts.

While the probable decrease of active field service in all our insular possessions,—more particularly in the Philippines, will render the mortality and disability reports less formidable than they have been during the three past years, there is every reason to believe that these statistics will still be appallingly significant as to the effect of tropical conditions upon soldiers recruited from the temperate zone.

But aside from the ordinary diseases to which the military man is peculiarly susceptible, we have in Cuba and Porto Rico, yellow fever and small-pox; and in the Philippines, bubonic plague, beri-beri, leprosy, and other Asiatic diseases, which fortunately attack the Caucasian race with seeming reluctance. This is all the more remarkable when it is realized that there are 30,000 lepers * estimated as being in the Philippine Islands, and from October to June, 1900 (8 months) there were, among all nationalities, 642 deaths from beri-beri, and 180 deaths from bubonic plague, in the city of Manila alone.

In a pamphlet published at Madrid in the year 1900, under the auspices of the Filipino Revolutionary Committee, the writer notes: "Our guerrillas will not have to give battle in the field; the diseases shall soon finish off the enemy." And, while happily this has not been the case, the latest Report (1900) of the Chief Surgeon, Division of the Philippines,† shows that during the seven months ending June 30th, 1900, the average

* Report Chief Surg. Div. Phil. (1900.)

† Col. Chas. R. Greenleaf, Ass't Surg.-Genl., U. S. A.

ratio of non-effectives to the strength of the entire army in the Philippines, was 8.84 per cent.; and the mortality from all causes during the seven months ending July 31st, 1900, was 24 officers and 971 enlisted men,* or an average of 4.7 deaths daily. The ratio of deaths due to disease, and those due to wounds, was about three to one.

Experience with Philippine field service, shows that diarrhoea and malarial fever are the two diseases which produce the largest proportion of non-effectives, most common during the protracted rainy season; and it is not infrequent to have an entire organization rendered ineffective, through the necessity of the well men doing the routine garrison duty and nursing the sick men back to convalescence. I may cite my own experience, that upon returning from a month in the field, where every precaution was taken to insure the men sleeping under cover at night and drinking nothing but boiled water, thirty-five out of fifty-four men became sick (65 per cent.), and it took two months of constant care under a most efficient surgeon, to reduce the sick-report to 30 per cent. During these two months, each one of the fifty-four men who had been exposed, was sick at some one period,—showing the far-reaching effect of the climate upon unacclimated men; and these were experienced soldiers, with years of service to their credit.

The Chief Surgeon says: "A very large decrease in sick-report however, must not be expected, because if the present force in the islands remains unchanged, as is probable, the effect of continued service will produce its natural result—sickness and mortality. If medical and sanitary officers can more than stem the tide, they will have done their duty well.

"All sickness in the tropics produces an effect on the general economy, that does not follow similar sickness in the temperate regions, in that it saps vital forces which are not restored by natural processes, and thus each illness possesses an increased importance in destroying that which cannot be regained, without removal from the country. The effect of illness in the tropics is therefore cumulative, each illness, great or small, adding to the total, until the patient becomes permanently disabled.

* Mortality rate of 26.7 per 1000 per annum.

"Apparently, the only disease from which recovery may be expected by residence at any of the sanitary points in the islands, is malaria; but even after such recovery, reinfection with malaria or infection with other diseases frequently follows exposure, and in many instances, the man is a frequenter of hospitals until he is disposed of by being invalided home,—or, if delayed too long, by death. * * * As time progresses, and the men become more and more debilitated by tropical service, the more marked will be the ratio of deaths. By careful sanitary inspections, the sick list may be decreased by cutting down the list of preventable diseases, and this is hoped for and expected; but the non-preventable diseases will constantly become more severe in type, and more intractable."

While it should be understood that the foregoing remarks were intended to apply to the army of occupation at that period—principally men enlisted for the two years ending June 30th, 1901, there is much food for reflection in these statements of the former Chief Surgeon of the Archipelago. Judging from the improved health reports from Cuba, as well as from the Philippines during the past year, due, doubtless to the decrease in field operations and the housing of troops in comfortable barracks, a still further reduction in the mortality and non-effective reports is to be looked for, when field operations—especially during the rainy season—cease altogether.

The question of absolute cessation of field service, deals with such an uncertainty, however, that time alone, may be expected to satisfactorily answer it. Nearly all officers of practical experience in the Philippines, believe that scouting for the outlaw element of the islands, may be expected for many years to come. Like brigandage in Italy, ladroneism has flourished as a recognized institution for several hundred years, and considering the difficult nature of much of the country in the Philippines, it is safe to say that outlawry will not be stamped out all at once. Ladroneism is not considered morally wrong by the majority of Filipinos; and from ladroneism to guerrilla warfare is but a step.

As to the health of the Filipino soldier, only one of the common diseases seems to affect him,—calentura or break-bone fever. He stands the heat well, and though highly sensitive to the

chilling weather of the mid-rainy season, he readily adapts himself to the wearing of warm clothing, and to the use of quinine as a preventive of calentura. He seems able to drink all kinds of water with impunity, and the common intestinal disorders are unknown to him. As he stands in the rice-fields, knee-deep in mud and water, during the working hours of day after day, one almost believes that years of exposure have made him amphibious. The factor of sickness among soldiers made of such material, will not cause the surgeons much uneasiness.

Economy of Administration and Supply.—A native Filipino can live and thrive on a small daily ration of rice and fish, three hundred and sixty-five days in the year. These are the favorite articles of food among the wealthy, as well as the poorer classes and with the addition of tobacco, are the only requisites necessary to render a Filipino happy and contented, provided he can see an occasional cock-fight. The ration provided for Philippine scouts by present regulations, is the Regular army ration, in somewhat modified form, but the fish and rice components are really all that the Filipino craves. This native food is easily obtained, and can be prepared for consumption in a very short time, and by the simplest forms of cooking utensils. In bulk, it occupies small space, is not easily perishable either in very hot or very rainy weather, and can be transported long distances on the person, with little fatigue, or, in larger quantities on pack-ponies or carts drawn by caribao. That it is an excellent field ration for the people to whom it is adapted, is evidenced by the use of a similar ration,—with slight variations, by the Japanese troops who took part in the China Relief Expedition. The simplicity of their ration rendered the Japanese independent of a complex supply system, and yet it was adequate to render these splendid little soldiers the most capable marchers and tireless fighters among all the allied troops who marched upon Peking.

It is thus quite possible for a force of native troops to march from one end of Luzon to the other, and not be compelled to call upon the staff departments for a single article of food, transportation, or equipage. Such troops bivouac without discomfort in the villages, and food supply for at least a single company is usually obtainable everywhere,—payment therefor

being made either in cash, or by vouchers payable by the nearest officer of the quartermaster's department. When we compare all this with the complex ration necessary to preserve the fighting efficiency of American troops; and the difficulties of transportation of these supplies in a country barren of good roads, the economy of utilizing native troops,—provided they can satisfy the military situation, is very apparent.

MILITARY EXPEDIENCY.

But will they satisfy the military situation? And is it expedient to organize a large force from among natives who for three years have opposed us most tenaciously?

The question of utilizing the soldiers of a captured province was not new in the time of Alexander the Great, or of Cæsar. And it has been tried with more or less success ever since. In some cases it has been highly successful; in others, it has resulted in grave disaster to the mother country.

Great Britain, the organizer of the largest and best equipped native army the world has ever seen, has still hanging over India the shadow of the Great Mutiny; and the unbroken period of fidelity to the Crown which has followed the Sepoy Rebellion, is doubtless due, not only to unceasing vigilance by the British commanders, but to that ingenious system of organization, which combines natives of different tribes and religions in the same regiment, and to the precaution of ever arming the native forces with arms slightly inferior to those of regiments of the line.

Those of us who saw the British Indian troops in China carried away a very high opinion of their efficiency for home defense. Fine appearing, easily controlled, expert in the use of lance, sabre, carbine or rifle, they seemed to feel unbounded pride in themselves and their organizations; and they apparently looked up to the British officers appointed over them, as being not only their military commanders, but also their guardians and friends. Almost equal efficiency is said to have been attained in the more recent organization of the Egyptian and Soudanese battalions of the British army, for service against the wild tribes of the Mahdi.

And yet, the success of such a measure must depend greatly upon the character of the people themselves,—their political

ambitions, their forms of religion, their unification by a common language or the reverse, their allegiance to native chiefs, their national inflammability, and many other things.

No one who has had a great deal to do with the native Filipino, will deny that as a type he is a consummate actor, a most deceptive schemer, and that his regard for veracity is absolutely *nil*. He has time after time broken his most sacred promises, and with often times no personal interest in the matter at issue, seems to prefer to lie than to tell the truth. These national characteristics have not only been brought to light in the military experiences of the past three years, but are at present the despair of the civil judges of the provinces. The Filipino is not a naturally warlike or ferocious type of mankind, but the shocking details of atrocities committed by natives upon one another and brought to light in testimony before the various Military Commissions, indicate the slight valuation that he places upon human life.

It would be irrelevant to here discuss the causes which have warped the moral fibre of the Filipino character. It is enough to bear in mind that he is a many-sided individual of complex personality; and that we may cherish the hope that in due time, his desire for education, and his ultimate perception of the sincerity of our government, and the possibilities of the future, will work a slow but certain evolution in his attitude towards the United States and in his moral responsibility.

But with such a universal estimate of the Filipino character by those who know him best, it is plain that his conversion into a soldier of the United States should be of gradual growth. Fortunately first steps in this direction were taken as early as May, 1900, when the Commanding General, Division of the Philippines, issued a general order,* authorizing the organization of a squadron of four troops of native scouts, each troop to have a maximum strength of 120 men. This squadron was for the most part enlisted among the tribe of Macabebes, and for a year past, has done most effective work in stamping out the guerrilla warfare of the insurgents. Wherever the American troops found the service particularly arduous and difficult, has come a request for the services of the tireless Macabebes. With selected United

* G. O. No. 25, Headquarters Division of the Philippines, May 24, 1901.

States officers as troop officers, these scouts have proven a terror to insurrectos; and have shown themselves invariably, to be splendid marchers, hard fighters, and loyal "Americanistas." * There has ever been a racial hatred between the Macabebes and the Tagalogs, and the difficulty which has usually confronted the American officers, has been to properly control the scouts in action. In the course of the severe campaigning of the past twelve months, complaints have from time to time been lodged by the Tagalogs, against the companies of scouts charging them with murder, robbery, and all kinds of brutality, but this would seem to be "the pot calling the kettle black." Although the danger in the employment of any more or less savage allies, is a tendency towards lack of control, investigation of such charges against the Macabebes, have almost invariably proven them to be groundless or grossly exaggerated. Many stories of alleged brutality have originated in the fertile imaginations of their hereditary enemies, the Tagalogs; and a kid-glove campaign could not be successfully waged against a people whose methods of fighting had, with a few brilliant exceptions, degenerated into a system of assassination and intimidation.

This squadron of scouts, officially designated as "Philippine Cavalry," has never been a mounted force, although armed with the U. S. magazine carbine. Upon enlistment, each scout was required to sign a written contract, to serve until June 30th, 1901, unless sooner discharged; and his pay per month was fixed at just one-half that of an American soldier, with a sufficient money allowance for clothing to render him comfortable and neat appearing. In his campaign hat, blue shirt, khaki trousers, leggings, and tan shoes, the scouts have attracted favorable attention wherever they have gone; and their punctilious saluting of officers on the streets of Manila, has made similar requirements on the part of some American regiments suffer by comparison. The most recent, and perhaps crowning achievement of the Macabebe Scouts, has been the capture of Aguinaldo; and it was their wise discretion, bravery, and endurance, which made General Funston's feat possible. Their term of enlistment having expired June 30th, 1901, they have

* A term of contempt, bestowed by the Tagalogs upon those natives who display American tendencies.

fortunately been continued in the government service, as part of the 12,000 native troops authorized by Act of Congress.

In January, 1901,* the employment of native scouts was still further extended, to permit the enlistment of not to exceed one non-commissioned officer and seven privates for each organization of white troops. Enlistment was in the form of a written contract, with the same rates of pay as authorized for the Philippine Cavalry. In some regiments these scouts were left attached to the component organizations; in others, all the scouts were combined into one detachment, and used under the personal direction of the regimental commander. They were selected with more than ordinary care, and many ex-insurrecto officers and soldiers were found who were glad to cast their fortunes with the Americans. In most cases, each scout was, before final enlistment, invited to perform some service for the local military authorities, which would place him on record with his fellow Tagalogs, as being an "Americanista," and would, in future, commit him to service in the American cause. They were usually ex-insurgent soldiers who had either been maltreated by their officers, or who had grown weary of being hunted from place to place, separated from their families, and oftentimes half-starved, without seeing any of the roseate predictions of their leaders come to pass.

Once committed to service under the Stars and Stripes, there has so far, been few cases of disloyalty among the scouts. In fact, the scout dared not go anywhere without his gun or pistol, and he was in constant danger of assassination at the hands of the insurgents. He was specially marked out by the Filipino leaders for "removal," and his hatred for his former companions became as fierce as was their hatred for him. In my own experience, I well remember the consternation and indignation which was greeted by the murder of our most valuable scout,—an ex-major of insurgents, in the centre of a large garrisoned town, in broad daylight, within 100 yards of a barracks where 200 soldiers were quartered. He had rashly visited the cockpit of the town, and when about to leave, was struck down by three bolomen, specially detailed by the insurgent commandante of the district, to perform the dastardly murder.

* See G. O. No. 10, Hdqrs. Dept. of So. Luzon, January 21st, 1901.

When the enlistment of native scouts was first authorized, the military situation had reached a point where aggressive operations against the guerrilla tactics of the insurgents were almost at a standstill. The rebels were daily doing great mischief, and absolutely no information could be obtained of the whereabouts of the enemy, and the hiding places of their arms and ammunition. The noncombatant Filipinos were everywhere playing a double rôle: outwardly filled with zeal for the American cause, and secretly betraying every movement of the U. S. forces to the insurgents. In many towns a dual municipal government existed. Under the supervision of the local military commander, they carried out his modest demands; behind closed doors, they levied a tax of money and food upon the citizens of the town, and despatched these "sinews of war" by night, to the mountain cuartels of the insurrectos. The few Tagalogs who dared to manifest any partiality for the American cause, were boloed, buried alive, or otherwise horribly murdered, until a reign of terror tied every Tagalo tongue.

The enlistment and employment of native scouts marked a new era in offensive operations. They knew the topography of the country as an open book, the language was familiar to them, and above all, they knew the Tagalog nature better than any white man can ever hope to know it. Although, as has been said, they carried their lives in their hands, they persistently kept in touch with the people, and in due time, little by little, information began to flow in to the authorities, which ultimately formed the basis of important captures. The effect of all this was cumulative, for the greater the number of prisoners captured, the greater was the information obtained by the scouts.

The value of the latter was most marked, when organizations attempted to work without scouts, alongside those organizations which used them. The efforts of the former usually proved so impotent, that most officers soon became converted to the fact that little could be accomplished except through the assistance of the natives themselves, and organizations of Macabebe, Ilocano, Visayan, and Tagalog scouts, were soon important features of the army of occupation.

As a still further preparation for the organization of a permanent force of native troops, a native municipal police now exists

in most towns in the Archipelago; and at the present writing, a native Insular Constabulary is in process of formation, which will permeate all parts of the islands, and have its headquarters in Manila. Although not under the control of the military authorities, their organization is so analogous to that of native troops, that a brief description may not be irrelevant.

The municipal police were authorized during the spring of 1901, and were selected by the presidentes of the various pueblos, under the supervision of the local military authorities. They were armed with American single-barrelled shot-guns,—the lieutenants of police carrying revolvers. The results have been quite satisfactory. The police have, as a rule, preserved the peace within the towns; and if ladroneism has continued in the rural districts, it can hardly be placed to the discredit of the municipal police.

On July 4th, 1901, the government of the Philippine Archipelago was transferred from the military to the civil authorities; and one of the first acts of the Civil Commission, was the passage of a bill, providing for "The Organization and Government of an Insular Constabulary, and for the Inspection of the Municipal Police."

The Act authorizes a Chief of Constabulary, four classes of inspectors, and a native constabulary to consist of not less than one sergeant, one corporal, and fifteen privates, and not more than four sergeants, eight corporals, and fifty privates, for each geographical province. The members of the force, officers and privates, are designated as *peace officers*, and their duties are defined as the prevention and suppression of brigandage, unlawful assemblies, riots, insurrections, and other breaches of the peace and violations of the law. The Act provides, among other things, for the mounting of the constabulary upon horses, for frequent inspections by the inspectors, for bringing prisoners before a Justice of the Peace within twenty-four hours after arrest, and for the severe punishment* of any member of the force found guilty of obtaining money or property, through threats of arrest or prosecution. The Act concludes with provision for calling upon the military authorities (through the Civil Governor) for assistance, whenever disturbances of the

* From one to ten years imprisonment.

peace shall occur, of so formidable a character as to be beyond the power of the local and insular police of the provinces, to suppress.

The Chief,* and most of the inspectors, have been chosen from among the officers and ex-officers of the Regular and volunteer services; but the office of inspectors of the fourth or lowest class, is held open to deserving natives. Members of the constabulary are to work in localities with which they are familiar, and no attempt is to be made to utilize natives of one race in the territory of another. The constabulary will be uniformed in light blue-checked cotton goods, will be armed with shot-guns and 45 calibre revolvers, and two thousand native ponies are to be furnished for their use.

It is believed by the framers of the act, that its effect will be to break up and disperse the bands of ladrones which have infested the mountain regions of the islands, from time immemorial; and that it will insure a better state of law and order, not only around the towns, but in the more isolated agricultural and mining districts.

The weakness of the system, as well as its strength, would seem to lie in the centralization of power in the chief inspectors, one section† of the Act requiring that the municipal authorities can call upon the constabulary for aid, only through a Provincial Inspector, who may be located many miles away from the scene of action. Again, it has been the experience of army officers, that unless natives are actually led by Americans they lose much of their efficiency. The municipal police have already shown a tendency to call upon the military authorities for aid in all cases possessing an element of danger or responsibility. The corruption and trickery which has impregnated and warped the Filipino nature during so many years of Spanish rule, is quite likely, too, to be much in evidence in the relations of the constabulary with the natives. Filipino officials, whether civil or military, seem to regard the payment of a commission for services rendered—more vulgarly known to Americans as a “rake-off,” as a matter of course. It was the usual thing during Spanish rule, and it will take years to eradi-

* Major Henry T. Allen, Captain, 6th Cavalry.

† Section 14.

cate the belief that bribery and corruption are not morally wrong if not detected.

These things are dwelt upon because the same difficulties will be encountered in the organization of native troops, and because the duties performed by the constabulary under the civil government, and those of native troops under the military government, will oftentimes be so closely related as to be interchangeable and coördinate. As has been remarked, it is but a step from ladroneism to incipient insurrection, and the civil and military arbiters of peace, must work together side by side.

At all events, those who watch day by day, the signs of the times in the Orient, are unanimous in agreeing that a strong force of troops must be kept in the Philippines for many years to come; and that a large part of this force might, if properly organized and officered, be recruited from the native population of the islands, seems evident upon both economic and military grounds. The question of such organization will be discussed later on.

POLITICAL EXPEDIENCY.

After all has been said as to the economic and military advantages of replacing Regular troops by natives, there are considerations still remaining of a political-military character, which perhaps outweigh all others.

For political, and incidentally military reasons, it would seem highly important to bind the entire fabric of the Philippine Archipelago, by a common interest and participation in a system, which will not only be a source of pride—and the Filipinos are impressed in the highest degree with that which smacks of extreme military formality—but will bring from the central government to the masses, a regular revenue. The pay of a native soldier, small though it appears to us, means much to the peasantry of the islands; and will mean more, when they become more or less dependent upon it for support. Prevention is ever better than cure, and it is believed that the formation of a well disciplined native force, would keep many "idle hands" out of mischief, and would prevent in a degree, a repetition of the disorders of the past three years. Moreover, those individuals who might be most attracted towards service under the United States, would quite probably be the ones who

if left to their own devices, might sow the seeds of insurrection. How much more diplomatic to spend large sums on such a military system, making it attractive and desirable, than to quadruple such expenditures in costly campaigns. The former, unless all signs fail, would be cumulative in its pacifying effect; the latter, if not cumulative in spreading discontent, stops all progress for the time being, and, worst of all, causes the sins of the guilty to be visited upon the innocent.

The Filipinos are a people of formalities. Their church services, fiestas and funeral, marriage, and baptismal processions, all reflect the love of the people for display. They have been sadly disappointed in the American lack of formality, and in their contempt for the punctilious ceremonies which marked the Spanish régime. They would be far better satisfied were the Governor General to appear in public, only in a gilded coach, surrounded by glittering outriders and preceded by a body guard. The Filipino has an innate respect for gold lace and brass buttons, and he likes you a great deal better, if you are inaccessible only through rows of uniformed guards and orderlies.

All this is repugnant to America and America's officers, but it reveals a phase of the Filipino character which is very strongly developed. Republican simplicity will ever mark the government of our foreign possessions, whether that government be civil or military; but military service in the islands opens up to the native Filipino a popular profession, and bespeaks for a native army a high place in the thoughts of the people. It is believed that the pueblos will, with the strong local feeling which prevails in the Philippines, come to feel a personal interest in their representative soldiers; and that the latter will, in a measure, mould public opinion at their homes, and reflect a higher estimate of things American among those who have been taught to believe that Americans are a little lower than the brutes.

ORGANIZATION AND EQUIPMENT.

Enlistment.—From what we now know of the native character, the enlistment of Filipino troops,—so far, at least, as it relates to the Tagalogs, should proceed slowly. A nucleus already exists in the companies of Macabebes, Ilocanos, and Visayans, who

have always proved reliable; and in the scattered Tagalog scouts and secret-service men, who have assisted the American troops during the past year.

So far so good. The danger will lie in the enlistment of the Tagalogs, and for military and political reasons which have already been dwelt upon, it will be highly desirable to have, sooner or later, a large number of Tagalogs in our native military system.

The local military commander in nearly every important pueblo can name one or two reliable Tagalogs who have committed themselves to the American cause, and these natives should be immediately available for enrollment in the new organizations. Later on, much excellent material might come from the municipal police and insular constabulary.

It is believed that enlistments should cover as large a geographical area as possible, and in the assignments to companies and battalions, recruits from the same or adjoining localities should be separated, so that each organization will represent as many different municipalities as possible. This will minimize in a degree the tendency which propinquity and blood relationship may exert in the formation of cliques; and if native soldiers are permitted to bring their wives to the station of their company, long absences from home will cause little dissatisfaction.

Much better results will be secured if the recruiting officer travel about, selecting natives where they can be vouched for by the local military authorities or the presidentes of the pueblos, than if general recruiting offices be opened.

Organization.—The section of the Army Bill relating to the organization of native troops in the Philippines, is evidently based upon the reports of those officers who have had practical experience with Philippine conditions. The largest unit authorized by the bill is a squadron or battalion, and it will be rare when it will be necessary to have a larger command assembled. In the majority of cases, the companies of scouts will be widely scattered, occupying stations in important towns, and supplied from some convenient point.

It is a wise provision of the bill, too, which selects the majors and captains from the captains and lieutenants respectively, of

the Regular army; and the lieutenants of scouts, from the non-commissioned officers of the Regular service, or from the officers or non-commissioned officers of volunteers. Such a measure is well calculated to promote efficiency and stimulate ambition. Service with Philippine scouts, will as in the past, be arduous and dangerous, which fact alone will doubtless attract to it, many young officers of ability and daring.

As cavalry has been found to be a particularly effective arm for Philippine service—in the wet as well as the dry season,—there should be organized an equal number of troops of cavalry and companies of infantry. And it would seem that the ultimate composition of such organizations should be one-half Tagalogs, and the remaining half, one of the friendly tribes,—Macabebes, Ilocanos, Visayans, or Negros. There have been a few Tagalogs in the old companies of Macabebes, and the increased number in each organization could be made gradually,—the proper proportions being maintained by transfers. Probably there would be much friction at first between the races, but this very fact would insure few conspiracies being hatched, without coming to the ears of the company commander.

As has been previously noted, this mixture of races in native military forces, has been successfully tried by the British in India since the Sepoy Rebellion. Those of us who were fortunate enough to take part in the China Relief Expedition, can bear witness to the apparent good feeling and harmony prevailing in the organizations composing the Bengal Lancers, the Punjabs, the Sikhs, the Beluchistans, and others.

There is no lack of excellent material in the islands, and from present indications, there should be great demand for service in the native companies. This being the case, there should be a thorough weeding out, after enlistment, and summary discharge of all natives who do not come up to a high standard in discipline, drill, and general efficiency. If, in time, there are indications of the existence of a coterie or clique in any organization, the precaution of transferring the ring-leaders to other troops or companies, should be a simple check upon possible disloyalty.

The Filipinos may not be a military or warlike people, but, it must be confessed, they are apt pupils, and, with proper

training, should compare favorably with the native troops of India—certain high caste organizations, perhaps, excepted.

It was the writer's experience during service of a year and a half with a troop of Brulé, Sioux Indians, that however easily they adapted themselves to the white man's ways of making war—finally executing with ease the complicated movements of regimental and squadron drills,—the final result was to spoil most excellent scouts, in order to make indifferent soldiers. Experience alone will show whether similar results will follow the training of the Filipino soldier, but it is believed that they will not. He has no distinctive method of fighting, unless it be to fire rapidly from an inaccessible position, and then run, each man for himself.

What he needs most is fire-discipline and the moral effect of being led by American officers, as well as the steadying effect of regular drills, will overcome much of this nervousness.

Uniform.—Although the native costume is usually a gauze shirt or *camisa*, a pair of light-weight cotton trousers, a straw hat, and no foot covering, the Filipino scout has taken kindly to campaign hats, blue flannel shirts, khaki trousers, and tan shoes. So long as this uniform seems to suit him, it will be well, for the sake of simplicity and economy, to make no change. Scouts usually go lame, when required to march in bare feet, after having worn shoes for some time previous. A bare-footed soldier does not make a very soldierly appearance, and yet during the rainy season it is often advisable to remove the shoes.

Arms.—For a great many months our forces in the Philippines have been trying to obtain possession of the insurgent arms and ammunition. The capture of these was usually of more importance than the capture of prisoners, for the reason that the insurgents had three or four soldiers for every rifle. The question, then, of the reissue of arms and ammunition to natives, is a very serious one.

Prudence would dictate the issue of an inferior arm,—either rifle or shot-gun. But with the latter, and perhaps the former, scouts would be at a great disadvantage when operating against an enemy armed with Mauser rifles and using smokeless ammunition.

All things considered, the best course would seem to be to issue the regulation U. S. magazine carbine to the native forces, and then carefully regulate and check the issue of ammunition, so that every round shall be duly accounted for.

The greatest drawback to the Filipino insurrection has been lack of good ammunition, and especially ammunition for the U. S. magazine rifles and carbines which had been captured or stolen. Therefore, if ammunition be issued to native scouts for field service only, and then be carefully checked through personal daily inspections by the officers, it is believed that there will be small risk of loss. Of course the loss of a carbine by a scout should be followed by the severe punishment of the offender; for doubtless he will be many times tempted to dispose of it for treble its real value. The desertion of a scout to the enemy should invariably be visited with the death penalty, if the culprit be apprehended.

Once upon a time, many years ago, a Spanish priest made the study of the Philippine people his life-work. Year after year he toiled among them,—saving souls, burying the dead, baptizing the children, and ministering to the poor and sick, until he was looked upon by his colleagues as an authority on the manners and customs of the people. More than once he was heard to remark that some day he would embody the results of his experience in a book, which he would leave for the benefit of posterity.

As he approached his four-score-years-and-ten, he determined to retire from the missionary field and return to Spain, there to end his days; and his colleagues immediately became eager to possess themselves of the book, which he publicly announced would be found among his belongings.

After his departure the book was found. Upon the cover, in illuminated script, was the title: "What I Know About the Filipinos." Upon opening the book, every page was found to be blank.

So it is with all who visit the Philippines. After a stay of a month, one feels sure of his knowledge of the Filipino character; in three months, one is beginning to have doubts; and in a year, one confesses to absolute ignorance, except that life is

filled with bewildering surprises and contrarieties. One despairs of attempting to predict that which by all ordinary rules of conduct should logically come to pass. And such has been and will be, the experience of both the civil and military authorities. Perplexing problems will come to light where least expected; and successful progress will, in turn, be made along lines hitherto unthought of.

Although constant success has followed military operations during the past year, the problems of future field service in the Philippines are at present as unsettled as was the Indian Question, a quarter of a century ago.

Nevertheless the outlook is bright, and it is believed that the employment of native troops,—the use of which has been discussed in the foregoing pages, will greatly simplify the military problems of the future. And the success of the civil government, with its campaign of education and industrial development, is so interwoven with and dependent upon the simplifying of the military situation, that factors affecting the one must affect the other.

Oftentimes unappreciated, the Regular army was the bulwark behind which rallied the industrial pioneers of the great West. The Regular army, with its auxiliary native forces, will again be the advance guard of all that stands for progress and development in our Foreign Possessions.

LUZON.

APPENDIX.

An Act to increase the efficiency of the permanent military establishment of the United States.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

* * * * *

Sec. 36. That when in his opinion the conditions in the Philippine Islands justify such action, the President is authorized to enlist natives of those islands for service in the army, to be organized as scouts, with such officers as he may deem necessary for their proper control, or as troops or companies, as authorized by this Act, for the Regular army. The President is further authorized in his discretion to form companies, organized as are companies of the Regular army, in squadrons or battalions, with officers and non-commissioned officers corresponding to similar organizations in the cavalry and infantry arms. The total number of enlisted men in said native organizations, shall not exceed

twelve thousand, and the total enlisted force of the line of the army, together with such native force shall not exceed at any one time one hundred thousand.

The majors to command the squadrons and battalions shall be selected by the President from captains of the line of the Regular army, and while so serving they shall have the rank, pay and allowances of the grade of major. The captains of the troops or companies shall be selected by the President from first lieutenants of the line of the Regular army, and while so serving they shall have the rank, pay and allowances of captain of the arm to which assigned. The squadron and battalion staff officers and first and second lieutenants of companies may be selected from the non-commissioned officers or enlisted men of the Regular army of not less than two years' service, or from officers or non-commissioned officers or enlisted men serving, or who have served, in the volunteers subsequent to April 21st, 1898, and officers of those grades shall be given provisional appointments for periods of four years each, and no such appointments shall be continued for a second or subsequent term unless the officers' conduct shall have been satisfactory in every respect. The pay and allowances of provisional officers of native organizations shall be those authorized for officers of like grades in the Regular army. The pay, rations and clothing allowances to be authorized for the enlisted men shall be fixed by the Secretary of War and shall not exceed those authorized for the Regular army.

When, in the opinion of the President, natives of the Philippine Islands shall, by their services and character, show fitness for command, the President is authorized to make provisional appointments to the grades of second and first lieutenants from such natives, who, when so appointed, shall have the pay and allowances to be fixed by the Secretary of War, not exceeding those of corresponding grades of the Regular army.

Sec. 37. That the President is authorized to organize and maintain one provisional regiment of not exceeding three battalions of infantry, for service in Porto Rico, the enlisted strength thereof to be composed of natives of that island as far as practicable. The regiment shall be organized as to numbers as authorized for infantry regiments of the Regular army. The pay, rations, and clothing allowances to be authorized for the enlisted men shall be fixed by the Secretary of War, and shall not exceed those authorized for the Regular army. The field officers shall be selected from officers of the next lower grades in the Regular army and shall, while so serving in the higher grade, have the rank, pay, and allowances thereof. The company and regimental and battalion staff officers shall be appointed by the President. The President may in his discretion, continue with their own consent the volunteer officers and enlisted men of the Porto Rico regiment, whose terms of service expire by law July 1st, 1901. Enlistments for the Porto Rico regiment shall be made for periods of three years, unless sooner discharged. The regiment shall be continued in service until further directed by Congress.

* * * * *

Seaman Prize—Honorable Mention.

THE UTILIZATION OF NATIVE TROOPS IN OUR FOREIGN POSSESSIONS.

BY COLONEL JAMES W. POWELL, U. S. A.

THE maintenance of health, beyond two or three years, undeteriorated by life in a tropical climate by those not inured or born to it, and the attendant losses from disease will compel frequent return of troops to the United States, for we may rightly attribute to climate many of the ailments of the tropics, stimulated through errors in use of improper food. The manifest disadvantages of these changes of stations are apparent aside from the great cost involved by water and rail transportation and the expense of moving supplies for the troops with the constant need of reinforcements. Another not insignificant feature will be increase of pensions from disabilities which might not otherwise arise. If therefore, it be possible to avail ourselves of native auxiliaries constituting a colonial army for the suppression of the guerrillas and bandits in the Philippines and as a general police ensuring protection for the peaceful inhabitants in our colonial possessions and so relieve our soldiers of much of the fatigue inseparable from the task of garrisoning that great area of country, the utilization of such a force presents a solution of the problem well worthy of investigation and consideration.

While the regiments of the permanent establishment would be periodically stationed in the colonies, the burden of continuous service would fall upon the native troops, to whom this service would give attractive employment, opening to them a career of honor and usefulness. Efficiency would be secured with economy of health and money. In how far it may be advisable to enlist Filipinos is a question of importance and intense interest in our administration of affairs in the Archipelago and makes pertinent a brief historical reference to, or *résumé* of, what has been done by other nations under like

circumstances. It is therefore proposed for the benefit of those to whom opportunity has not been afforded for study of the workings and organization of native contingents under the modern system, to rapidly narrate some of the lessons with which the use of such forces by England, France, Germany and other countries are replete.

We, of course regard the question of retention of the Philippine Islands as *res judicata* and we shall fall short of our duty if we confer upon the natives only the benefits of just laws and moderate taxation combined with civil and religious liberty. We must endeavor to raise their character by education and encourage their rise to higher station and responsibilities. Thus while patronage appeals to them personally, there are economics demanding careful consideration from other than the military point of view, while exclusion from participation in the military arm will more quickly quench a national spirit and love and loyalty to our Government than any other factor.

Among the most potent measures to strengthen the tenure of Great Britain in her colonial possessions in India was the organization of Sepoy battalions. England's dependence, nay, her very existence in control, was upon the native troops; and a review of India's military history and the value to the mother country of those native aids, is an index to the valuable reserve at our hand, easily created, with the relief to our army operating in the Philippines. Nor is there danger of such outbreaks as the Indian mutinies. An examination of the many Sepoy rebellions from that of 1784, when twenty-four Sepoys were executed under sentence of drumhead court-martial "to be blown away from the guns," to the culminating mutiny of 1857, will show that causes contributed to these fearful uprisings far removed from any events possible under American administration. The better classes, the aristocracy, if the term may be permitted, are being gradually won over, the priesthood, learning our fairness and complete religious toleration, will be with us, and the people as a whole will in a great measure be conciliated if the military arm is in part represented by themselves. The experiment is not hazardous, if we move slowly in organization, as is now the plan of the War Department in employing natives as scouts.

The fidelity of the Macabebes has been proven under fire and the like honorable conduct of the former insurrectos Hilario Tal Placido and Captain Segovia, a Peninsular Spaniard, and other Tagolos was shown with General Funston in his capture of Aguinaldo.

It cannot be controverted that Asiatic forces have often risen in insurrection, but any tendency to the spirit of mutiny in our colonies will not rise above the individual, while the equitable and generous treatment accorded them will instill loyalty and patriotism and overcome any growing of general discontent. It is very important to bear in mind also that there are no caste prejudices to be subverted or contended with in the cooking or eating detrimental to the religion of the Filipinos, and these are matters which have ever been disturbing factors in British India.

Prior to the frightful convulsion which forty-four years ago appalled the world, the East India Company, as a corporate body, raised and provided for a large part of the Indian army, and the mutiny can be traced, not to the disloyalty of the native troops, but to the harsh and unjust treatment of that part of the army governed by the East India Company, an army largely composed of the worst elements of the universe. Investigation of the mutiny of 1837 shows that its inception was not due to any natural perfidiousness of the native troops, but that they were goaded on to acts of disloyalty and treason by the intolerant faithlessness of the Company. The "White mutiny" of 1839 was simply confined to local European troops refusing to do duty when transferred from the Company's to the Queen's service, under the system established in 1838, whereby the British Government assumed full control of all administration in India.

It was remarked by Sir John Kaye (Sepoy War), referring to the employment of native troops in India: "Our first Sepoy levies were raised in the Southern Peninsula, when the English and French powers were contending for the dominant influence in that part of the country. They were few in number, and at the outset commonly held in reserve to support our European fighting men. But little by little they proved that they were worthy to be entrusted with higher duties and, once trusted

they went boldly to the front. Disciplined and directed by the English captains, their pride was flattered and their energies stimulated by the victories they gained." These troops drilled in European tactics were officered by chiefs of their own nationality, although at times by English officers conversant with the native dialect who served with them. "In the earliest establishment of the native battalions it was recognized that their officers should be of their own nationality, and, important in that country, of like religion, while the military instruction imparted, being confined to the more elementary evolutions, was that of the British army. But later on as the European population increased, the inevitable tendency was "to oust the native functionary from his seat or to lift him from his saddle, that the white man might fix himself there, with all the remarkable tenacity of his race. So it happened in due course that the native officers, who had experienced real authority in their battalions, who had enjoyed opportunities of personal distinction, who had felt an honorable pride in their position were pushed aside by incursion of English gentlemen * * * an English subaltern was appointed to every company, and the native officer then began to collapse into something little better than a name."

This retrogression and displacement of officers harbored discontent and ended in disastrous alienation, it left the native to feel that he was not implicitly trusted, thus weakening his pride and loyalty and fomenting the mutiny of 1837.

It is generally admitted within British experience, and as we ourselves witnessed in the Philippines, that the native officer is not fitted to lead or command against disciplined white troops, he is further wholly without initiative; but we would not in any large measure deprive the native soldier of the incentive to loyal service in preferment to certain commissioned grades, we would however limit the number of white officers as shown in the project submitted further on.

The first enlistments of native Indian troops were made in 1695, the English being well settled in Calcutta. Following the terrible tragedy in 1756 of the Black Hole of Calcutta, Clive's battle of Plassey, a year later, brings us to the real foundation of British supremacy in Bengal. The native forces

were rapidly enlarged until in 1808 they numbered 154,500 natives to 24,500 Europeans, and in the year preceding the great mutiny, they had been augmented to 348,000 native troops, with 248 field guns, to 38,000 Europeans with 276 field guns. To those who fear to arm the natives and cite the troubled times in India, we reply that while conceding the undue proportion of natives over the Europeans, we should investigate and see whether there were not incitements which forced the terrors in India, complex causes, partly political, partly religious, combined with serious maladministration, ridicule of their religion, the innuendo that they must be converted to Christianity, their beards shorn, caste-marks effaced, despoiled of their ear-rings, and wholesale confiscations of tribal territorial possessions. These insults and grievances culminating with the introduction of the Enfield rifle, necessitating the use of lubricated cartridges, which the natives believed were greased with hog's lard, the despised fat of swine, or fat of the venerated cow of the Hindus, and as the end of the cartridge was to be bitten off by the Sepoy, contamination was thus brought to their very lips, to be eaten and absorbed into their very being. Nothing to them could have been more unclean, foul or disgusting. As a historical fact, the grease applied to the cloth patches was composed of linseed oil and beeswax. Fortunately we will have no like prejudices or involved causes to encounter or overcome. Speaking generally the customs and habits of the Filipinos will soon affiliate with our own with an increase of wealth and prosperity and without need of measures regarded as offensive or insulting.

In the reorganization after the Indian mutiny was quelled in 1858, a commission recommended that the native force should not bear a greater proportion to the European than 2 to 1 for Bengal, and 3 to 1 for Madras and Bombay respectively. The artillery with minor exceptions (Bengal, one garrison company and ten mountain batteries, Bombay two light batteries) was to be all European, and with the later modifications, increasing slightly the allowance of native artillery in the Punjab and Madras and decreasing this arm in Bengal and Bombay; this is practically the basis of the entire military force in India at the present time.

The population of India, 287,250,000, is composed of a great number of people of different manners, customs and castes, and it has been found that recruiting has been most facilitated by grouping in the same companies natives of the same races, as Sikh, Rajput, Jat, etc. As a rule in the native army at large each troop or company is composed of one class of men only; for example in the cavalry, three troops are composed of Sikhs, one of Dogras, two of Rajput Mahommedans and Hindus, one of Pathans and one of "Punjabi" Mahommedans. This segregation has been found useful during minor disturbances in pitting tribes hereditarily hostile against each other.

The Sikhs have proven themselves loyal and gallant soldiers, and the devotion of Clive's Sepoys at Arcot has passed into a proverb. History records that at the siege of Delhi the native regiments sustained losses which few European troops would have borne, and is replete with incidents of their magnificent behavior at Oudh, Lahore, Fumekabad and other conflicts.

The following instances of foreign service may be conspicuously enumerated. In 1801 the Indian army coöperated in the expedition to Egypt; in 1811 to Mauritius; in 1842 the Chinese expeditionary forces; 1856-57 the Persian expedition; 1860 to China, acting conjointly with the French army; 1867 to Abyssinia; Perak 1872, Malta 1878, Egypt 1882, and the more recent expeditionary force of 1900 with the allied powers in China, where a division composed almost entirely of Indian organizations was employed.

Do not these instances remove doubts that dependance can be placed upon the loyalty and faithfulness of native Asiatic troops?

In the recent operations in China there were the Sikhs, Beloochistans, Punjabis, and Rajputs. An officer of our army writing from Peking, referring to a parade of Rajputs from the north of India, says, "How well they look in their full dress brilliant crimson coats, tall and angular, with puttee-wound legs, turbans of blue, they indicate the might of English Empire which welds together the discordant elements of earth's population into one homogeneous whole." And so it is illustrated that native legions are valuable auxiliaries on foreign

detachment as well as upon their own health. Another reason for their employment.

As showing the widespread use of native troops we see that of the Asiatic Submarine Mining Detachments, there are 50 men each in Singapore and Ceylon and 70 men at Hong Kong. The "African Engineers" have one company of 81 men in Jamaica, all of whom are recruited from the same races as the Asiatic and African artillery, and commanded by British Engineer officers. In Central Africa there are eight companies numbering 1100 men. In Mauritius, 16 companies of native Indian troops, about 1600 men. The Straits Settlements in Asia have eight companies of infantry, about 600 men. Hong Kong, 16 companies, about 1600 men, recruited from Mahomedans of the Punjaub. In Wei Hei Wei, the Chinese regiment of 1083 men.

As a rule the regimental and battalion commanders, adjutant and quartermaster, are British officers attached for five years. The companies are commanded by native officers, with this exception, that in the Chinese battalion at Wei Hei Wei, all of the officers are British. In the "Royal Malta Artillery" of six companies, 725 men in all, both officers and men are recruited and appointed from the Maltese.

The "Asiatic Artillery" with four companies in Hong Kong has nine native officers and 446 men. One company in Singapore, three native officers and 119 men; two companies in Ceylon, four native officers and 196 men; two companies in Mauritius, all recruited from natives of India, mostly Mahomedans and having only small cadres of British officers. The "African Artillery" has one company of 100 men each at Sierra Leone, Jamaica and St. Lucia, recruited from West India negroes. In these cases every company is commanded by a British officer. To the Asiatic and African artillery are attached 3 majors, 12 captains, 23 lieutenants and 30 staff sergeants of the garrison artillery.

In the West India regiment, doing duty in the West India Isles and on the West coast of Africa, the officers are appointed in the same way as in the Regular infantry. A few of the sergeants are natives of Great Britain transferred at their own request, the rest are West India negroes, wearing a zouave uni-

form: there are 3100 men, with 134 officers, the number of officers being thus limited on account of the unhealthy climate.

Native troops enter the service by voluntary enlistment, between the ages of 17 and 24 years. The number of volunteers exceeds the demand. In the cavalry the recruit is required to deposit the cost of his horse and equipments, about \$135, or the value can be deducted from his pay in instalments. The infantry soldier from the native officer downward is provided with everything in the way of equipments. Enlistments are made to include service beyond sea, and as has been seen liberal advantage has been taken of this proviso. Discharge can be obtained after three years service. Native officers are promoted from the non-commissioned officers, entering as junior officers. Neither the officers nor enlisted men of the English troops are required to show native officers any mark of respect to their rank. The pay is very meagre. Native troops are always used in garrisoning the more unhealthy posts. The organization of a cavalry regiment in India comprises one regimental commander, three squadron commanders, one adjutant and two other "duty doing" officers, eight British officers in all, and seventeen native officers, designated as one risalder major, three risalders, four resaiders, one resaider major, eight jemedares, with an enlisted force of 608 men. An infantry regiment has eight British officers, one regimental commander, two battalion commanders, one adjutant, one quartermaster, two "duty doing" officers, one medical officer and sixteen native officers, one subadar major, seven subadars, eight jemedars and from 696 to 896 rank and file. The experiment of the organization nicknamed "dumpies," for many experiments have been tried, having light-weight men to suit the light-weight horses of the country was unsuccessful. The cause for abandoning this attempt is not clearly defined. It would seem to be rather a good system for our own people. General Miles having captured large herds of Indian ponies utilized them with marked success in mounting his infantry during his campaigns on the Yellowstone.

The uniforms, as in their regular service, are distinctive and variable, that of the Chinese battalion being straw hats, khaki

blouses and trousers for summer, and turbans, with clothing of rough Irish frieze in winter, with red cummerbands and putties instead of leggings. The ration is an important element of the economic view, both in cost and the highly important element of transportation in the field, consisting of one catty of rice (1.33 pounds) one-third catty of flour daily, and one pound of meat in each week, at a cost, on the average, of \$1.07½ for subsistence and \$4.00 for pay. In the important matter of health, the conditions are reported as being excellent. Major Seaman in a recent visit to Wei Hei Wei, observed that while "the initial processes of drilling were tedious and required much patience on the part of the drillmaster, the men soon learned to respect their superiors, and became attached to them personally; and the officers having once gained the confidence of the men, could do almost anything with them. Discipline was maintained with but little use of the guard room, and drunkenness was unknown. They are remarkably respectful, orderly, docile and soon learn their tactics well."

We have perhaps rather closely reviewed the British system of native legions, but with her existing colonies and dependencies covering an area of nearly one-sixth of the land surface of the globe, their value and need can be better appraised and that system may be a guide to ourselves. As covering like ground we now more briefly recapitulate the methods of other governments, all of whom realize the availability of, and necessity for native contingents. Germany employs them in Africa, Cameroun, Togoland and German East Africa, in the Caroline and other islands and in China and the Samoan Islands. The Arabs did not accept without protest the planting of the German flag in East Africa in 1886 at Dar-El-Salem, but a Captain Wissman organized and maintained a force of native troops, who were not a part of the Imperial forces, selecting his commanding officers and non-commissioned officers from the retired list of the German army. Of the natives, a great many came from the Anglo-Egyptian army or were enrolled at Mozambique. This force was organized in May, 1889, with 20 officers, 40 non-commissioned officers and 1400 natives, and with these troops, assisted by the imperial navy, the uprising of the natives was suppressed. In 1891 they were merged into the Imperial pro-

tective troops. (*Kaiserliche Schutztruppe*.) Seven years later the existing organizations went into force officered mainly by Germans; the natives furnish a few lieutenants and many of the non-commissioned officers and all of the enlisted *personnel*. It will be here also observed that German authority was established by aid of the native soldiery. An exception to this organization is found in South Africa, where a number of Germans are enlisted without any grade or rank. An anomalous condition is presented in that German warrant officers and non-commissioned officers and privates are in no way subordinate to native officers. In South Africa, owing to the great distances traversed, marches are executed on horseback. In 1900 the German organization provided for each regiment one commander, one field officer, one adjutant, two surgeons, two paymasters, twelve captains and twenty-nine lieutenants, with twelve native officers and one hundred and twenty non-commissioned officers with twelve companies. As a rule four German non-commissioned officers are assigned to each company. There is also a police force of 460 Askans (natives). The total force in Africa consists of 3800 Sudanese and other natives. They make good soldiers after some service, but of the Askans enlisted 90 per cent. will quit at the end of the first month. The cost of maintenance of the troops is a charge upon the colony. The Zulus possessed solid military qualities but there are only very few left in service.

The colonial army of France comprises both European and native organizations, in Algeria, Tunis and other French territory. They have a native regiment of three battalions of Annamites in Cochin China; four regiments of Tonkinese, three of Sengalese, in Senegal, the Soudan and Madagascar, four battalions of Sengalese, on Ivory coast, Zinder, Chari, Diego Suarez, with 31 batteries of artillery.

In 1830, after the taking of Algiers, the French organized a battalion of infantry, afterwards increased to a regiment, recruited from the Arabs. They wore the Oriental costume, taking the name of zouaves. In 1842 the native troops had almost disappeared from the regiment. This force was expanded to three regiments in 1852. The wild life led by this famous corps became so attractive to the native Frenchman that the original element was crowded out. The native corps

of light cavalry, the Spahis, known later on as Chasseurs d'Afrique, are real light cavalry in the full extent of the term and the highest acceptance which it admits. It is composed of one-fourth French and three-fourths natives, and is a valuable part of the army of France.

In the Dutch colony of Java there are 19,040 native and 2359 Amboinese. Italy, with only one colony in Africa, on the Red Sea, combines Italians and native troops. The proportion is, 187 officers and 1136 men, Italians, to 57 officers and 5400 men natives.

When we review the world's work or some part of it, accomplished by employment of native troops we may well recognize that in their employment we are not undertaking any hazardous movement or untried scheme. History is replete with evidences of their loyalty and gallantry far out-numbering the disaffections. The Russians were able to put in line in Central Asia Mahoumedan troops to contest with the Afghans at Penjdeh with marvellous success, both as loyal subjects and as a fighting element. Sir Charles Wentworth Dilke writes, "The Russians indeed claim that they have 'turned the tigers into lambs,' but it is not necessary for us to go so far as to believe that the transformation is of that character; it is enough to say that these particular tigers or leopards have very completely, 'changed their stripes or spots.'

"The Russians have not only swallowed in the last twenty-four years a territory in Central Asia as large as the whole of Asia Minor, but what is more difficult, they have digested it." And this with native troops. While the new comer to the tropics may escape the prevalent diseases of such climates, he possesses no such degree of immunity as the natives. There is no question that acclimatization accomplishes much, but it is reached after the ravages of disease. The records of the British white troops show that the death rate in 1st and 2d years of service was 5.47 per thousand; 3d to 6th years of service, 155; 7th to 10th years, 16. The present English rule gives three years as the limit to which white soldiers should be subjected to duty in tropical countries. Lamur says that "during the active period of (French) operations in Dahomey, August to December, 1892, the rate of deaths from disease among the European troops was

111 per 1000, as compared to 15.1 per 1000 among the native troops. Beyond question native troops escape much sickness which must be regarded as inevitably attaching to foreign forces. Surgeon Munson in his interesting work on Military Hygiene says that "In the British military service the native troops serving in the tropics are about two and one-half times greater than the Europeans; and in the most unhealthful colonies the proportion of native soldiers is four, five, or, as in Sierra Leone, six times greater than that of the white troops. This example should be followed in our own service, and then employ sufficient native forces to garrison the more unsalubrious stations. The recent acquisition of native regiments in the Philippines and in Porto Rico, being of much advantage.* * * The French colonial forces being said to be made up of 18,000 white troops and 16,000 natives."

Our own records show an increasing number of absentees from the Philippines from one cause or another, with the need of replacing them from the United States by those neither immune nor inured to the deprivations they will sooner or later have to undergo and under the persistent influence of climate these in turn must be invalided home with extensions of leave or light duty assignments in the States while re-establishing the normal degree of health, thus causing prolonged absences.

It is not absolutely fatal to life or health being stationed at some parts of the archipelago, indeed in places, the climate, if climate alone be regarded, is delightful. These remarks pertain to the general consideration of such duty in all its aspects. Will not these and other causes suggest how the work can best be done? Will it not be greatly relieved by the utilization of native troops? The health of the native is also due to things which our people will not learn nor assimilate themselves to, through eating of meats and heat-producing foods, and refusing rice as a staple dietary. The need of additions of such hot condiments as chile, soy, curry, etc., to rice preparations do not seem to be understood as essential to satisfy proper digestion. On the other hand, the foreigner usually finds the use of highly spiced, peppery dishes rather promotive of indigestion, followed by serious intestinal troubles, and if the new comer has been accus-

tomed to the use of alcoholic beverages and does not quickly learn to abstain, another cause is furnished for illness.

The system now established by the War Department in preparing troops, newly enlisted, in drill and in what discipline means prior to embarkation for the colonies, where these things cannot be well taught under excessive heat and on field service, a system not earlier possible in the hurried rush of troops to the front, will have markedly good results both on health and efficiency. An added reason is shown for employment of native soldiery in that they can stand drill and marching from the day of enlistment.

In this paper we are not considering the white forces of Great Britain in Canada or Australia and other colonial possessions, where they are partly paid and partly volunteer. Our chief reliance would always continue to be upon the Regulars, who under our plan would garrison the larger places where healthy conditions prevail, relying upon the native forces at the less desirable climatic stations and for service in scouting, etc.

The Macabebes and Ilacanos being hereditary foes of the Tagols, we here see similar relations to those which existed between the northern Sioux and the Arickarees, Gros and Mandans, which we utilized to our manifest advantage in employment of the latter tribes as scouts. But as animosities die out we may expect to enlist Tagols, rather than establish any antagonistic governing bodies. The friendly Indian was of great assistance in our frontier warfare, though the attempt to form organized companies into what may be termed an irregular corps with discipline and drill was a clear failure. The organization was created but it involved the attempt to teach "what like is war" to those who had learned Indian warfare from earliest childhood—looseness it may be termed—but it was the way that they had always seen war conducted and constraint was irksome. They had the true martial spirit and as scouts were unexcelled in the world, but made into soldiers marching with "touch of elbow" and brought into line with the advance of civilization and whiskey, the fabric fell to pieces. In making soldiers of the Filipinos we will not encounter the earlier life conditions of our Indians.

The nucleus of Aguinaldo's army were the native troops

trained under Spanish officers and really the only soldiers of any account. By commissioning many of them his army was quickly organized.

The physical features of the archipelago make campaigning there one of great difficulty for American troops; the mountainous regions of the interior, the country practically destitute of roads and access for pursuit only possible by difficult trails, suggest other advantages of native troops for scouting parties and other active operations. Natives know their country, or if in new environments are not long in acquiring such familiarity; they know the language and tricks of their people; their probable ambushes and dangers and by mingling with the inhabitants can secure information not attainable by white soldiers or white scouts, and usually more reliable than obtained by paid spies, and as troops can and would move without the personal impedimenta of white soldiers, or absolute need of trains bringing up supplies of food. They are capable also of naturally and comfortably subsisting on native foods, even if wholly vegetable.

The employment of Macabebes was authorized by the Commanding General (Otis) sanctioning their use in this capacity as employés of the quartermaster's department in the absence of legislation to regard them in the classification of soldiers and has been a signal success. The first organization, to which full credit must be given to Captain Matthew A. Batson, 15th U. S. Cavalry, with the aid and encouragement of his division commander (MacArthur), was made September 1, 1899, and consisted of one captain, one lieutenant, one first sergeant, one quartermaster sergeant, six sergeants, eight corporals and 92 privates. The officers and sergeants were detailed from the army, while the corporals and privates were Macabebes. From the latter sergeants were subsequently made. The pay was "called" the same as that of our own troops, but was paid in Mexican currency or one half the value of gold. September 27th another company was organized. October 6th, a third company was added, the organization being completed October 24th by the addition of two more companies. This organization has been amplified until, when organized under the act of February 2, 1901, they will number 787 non-commissioned offi-

cers and 5550 privates; four troops (465) to be mounted, commanded by army officers and distributed by companies in North and South Luzon, the Visayas and Mindanao. They are practically, under the present system, a police organization, only in a measure partaking of the real military character, but will improve as they take on the discipline and permanency of soldiers.

This gradual introduction of the system is what is here advocated. It will enable selections to be made, on perfectly safe lines, later on.

Under Section 36 of the Act referred to, the President is authorized to enlist natives of the (Philippine) Islands to be organized as scouts, with such officers as he shall deem necessary, and to form companies into squadrons and battalions, the total number not exceeding 12,000 men. The majors are to be selected from captains of the line; the captains from first lieutenants, while the staff officers and second lieutenants may be selected from the non-commissioned or other enlisted men of the army of not less than two years service, or men who have served in the volunteers subsequent to April 31, 1898. Such officers are given provisional appointments for periods of four years, with re-appointmtent if their service and conduct shall have been satisfactory in every respect, with pay and allowances as fixed in the army. The pay, rations and clothing for enlisted men are to be fixed by the Secretary of War, not exceeding the Regular army allowances. Provision is made, when in the opinion of the President natives show, by service and character fitness for command, the President is authorized to make provisional appointments to the grade of lieutenants. Authority is given for maintaining in Porto Rico one provisional regiment, the enlisted *personnel* to be composed of natives with enlistment for three years. The term of enlistment is not prescribed for the Philippine companies. The period for which officers may be detailed is not prescribed in either section of the statute.

Since essays upon this subject were invited, the War Department has rather forestalled any argument which might seem appropriate by authorizing the utilization of native troops and has prescribed much that would have been submitted in the

plan of organization. Still there are several rules not set forth which are worthy of notice. It would be well to establish the principle that the forces shall be largely composed of acclimated natives; that the cost of maintaining troops both Regular and native in our colonial possessions shall be a charge upon the revenues of the country, following the English system in India, where upon arrival of home troops they are borne upon what is termed the Indian Establishment and paid by the government of India. This seems an equitable provision and fair alike to those people as well as directly to ourselves. They should, at least, bear the direct financial burden of administration.

The central idea is a force recruited from among the people of the country, commanded in the subordinate positions by men of their own race, but of higher social standing. Elevation in character and pride of position cannot reasonably be expected among military men if they are deprived of a field for their ambitions, and if we have not sufficient confidence in them to permit attainment of grades above that of non-commissioned officer. There must be an absence of influences which would promote unrest, and it is believed, though differing radically from the system in vogue under the British, French and Germans, that native officers should be entitled to the same respectful salute by all soldiers as that given to other officers, in other words, simply an application of paragraph 46 of the Regulations, observing the fundamental principle that the compliment is paid to the office not the officer.

The Filipinos will learn that it is a privileged honor to serve the country as fighting men and this feeling will be created and appreciated if they are established as soldiers, not in the guise of soldiers while mere employés of the quartermaster department, even though the work be practically the same in character. Again referring to the Macabebes, a recent official report reads: "The conduct of the officers and men was all that could be expected, their behavior was superb." "The expeditions have fully demonstrated the loyalty, bravery and endurance of the Macabebes as soldiers." An example of the conduct of this tribe is found in the case of Lieutenant Hazzard, 3d Cavalry, commanding a troop of Macabebe scouts, who captured the American deserter Howard. One of the scouts, dis-

guised as an insurgent, with eight Macabebes, penetrated at night into the insurgent camp garrisoned with 340 riflemen and 200 bolomen, found Howard, bound and gagged him, and led him away without disturbing the camp.

The Rurales of Cuba have shown efficiency and reliability and presented during the recent Mardi Gras in Havana a soldierly appearance and bearing which could hardly have been excelled. The handsome showing and evident pride in their position of the battalion of the Porto Rico regiment at the inauguration of President McKinley was the subject of general admiration and their well endorsed efficiency in the Island further attest availability of native contingents.

The officers of the U. S. S. *Philadelphia* say that even in the Samoan Islands the Tutuila Naval Guard is one of the best drilled bodies of troops in the world. The natives look upon the soldier business with great enthusiasm when given a chance to enlist under the American flag. The Samoan troops wear red turbans, white undershirts, blue dungaree "lava lavas" or breech cloths, with two red straps around the hem, the legs and feet bare.

If we carry out the plan of regular enlistments as already authorized by the act cited, we should arm them well, and with the same weapons as other troops and pay them adequately as soldiers. There must not be any halfway confidence or doubt. If we may not trust them completely it is better not to trust them at all. Loyalty, zeal and devotion will be lacking if we breed a policy of distrust. Artillery duty requires scientific training not essential in the infantry or cavalry, and this will be an ostensible reason why service with the guns be confined to white troops. English experience in India has favored employment of artillery, with few exceptions, to British white troops, as has already been shown.

The important question whether the organizations should be of the same tribal affiliations or grouped promiscuously in each company and regiment, has given rise to much discussion and equally strong arguments for and against in other countries, the plea being made that men of the same tribe would more readily form combinations against authority. That there should be no line of distinct tribal affinity would seem to be the better

course, although there are many causes which would operate in the event of an uprising in employment of those naturally antagonistic to each other.

The following outline of organization is presented as covering some of the best points from observation and experience. Native troops to be organized as infantry, with reserves of native ponies for service as mounted infantry, which would thus be efficacious in rapid movements, pursuits and scouting affairs. The mounts would be inexpensive in original cost and at the same time hardy and economical in the matter of forage. The commissioned *personnel* should consist of both Americans and natives, the United States officers being on detached service from their regiments of the permanent establishment, detailed from grades below those held in the colonial forces, acquiring local rank and the higher army pay of the grade while so detached. The regimental organization should be constituted as follows :

One colonel, three majors, one captain as adjutant, recruiting and signal officer ; one captain as quartermaster, commissary and ordnance officer ; one medical officer, all of the United States Army ; and the following of natives : one interpreter, with rank and pay of a first lieutenant ; band and non-commissioned staff as in our infantry organization ; each company consisting of native officers and enlisted men as in the same organization. The subsistence and clothing allowances should be fixed by a board of army officers and for issues to enlisted men only. For obvious reasons the approval or recommendation of the Military Governor or Commanding General should be required in all details of army officers. The incentive of higher grade and increased emoluments and especially the opportunities afforded for establishing records would render desirable such details, which should be for four years. Gradually the requirements should be made more exacting prior to appointment, including some knowledge of the languages of the archipelago, habits of the people and the essential proviso of having had service in the country in which the detail is sought. Professional ability, good temper, energy and administrative abilities must also be requisites. Prolonged absence, say for three months, from any cause other than wounds received in action,

to be held as vacating the position, which would be then filled by new selection or promotion. With efficient commanders there would be efficient subordinates.

Promotions from the ranks to company grades being always possible after the original appointments to lieutenants and captains have been made ; the original organization of companies during the first period of at least six months should be intrusted to our own officers with provisional appointments of natives, who when found qualified after probation could be duly commissioned upon recommendation of the colonel of the regiment. Subsequent appointments should be subject to the methods common in military examinations for a commission, with moderation in early examinations and ascending in degree after a few years. The tenure of commissions would be permanent with good behavior with the same protection afforded our own officers in this respect. Other than the summary courts, courts-martial to be composed of both Regular and native officers. Entrusting natives with the honor and privileges of officers of the United States Colonial Army will surely be appreciately valued and is certain to ensure faithful loyal service, while as mere employés as scouts or local police a far different phase of the situation is presented.

Careful study of the conditions arising from the expediency of this policy, bearing in mind the successful results to other nations and that expenses of maintenance be borne by the people benefitted, and whether the entire garrisoning and police of the Islands shall devolve entirely upon American soldiers, or whether we shall be aided by natives serving as a colonial army in promoting the advancement of the moral and material welfare of our new people, measurably relieving our army of some of the burdens of foreign service in these distant possessions, and we think winning confidence of the natives in this way and instilling the lessons of self-restraint, are contributing causes which confirm the affirmative of the proposition in "Utilization of Native Troops in our Foreign Possessions." VENTRY.

THE ACTION OF SAN MATEO. THE DEATH OF MAJOR GENERAL LAWTON, U. S. VOLUNTEERS.

BY CAPTAIN H. H. SARGENT, SECOND CAVALRY, LATE LIEUTENANT
COLONEL, 29TH INFANTRY, U.S.V.*

BY the fifteenth of December, 1899, the American forces of Generals Lawton, MacArthur, Young, and Wheaton in the Philippines had swept over almost the entire portion of the island of Luzon north of Manila. Under great difficulties, meeting and overcoming obstacles and conditions that seemed almost insurmountable, they had continued to press on with great fortitude, energy, and courage. They had fought the insurgents wherever found, captured their towns, driven them from point to point; and had routed, killed, and captured many.

During the progress of the American forces, many of the insurgents, though routed and defeated, had not been conquered. After each defeat they had scattered; and had either joined other insurgent forces in the northern part of the island; or, having escaped through the American lines, had taken up strong positions in rear of the American troops, and had there made ready to fight again.

It was thus that the town of San Mateo came to be occupied by a considerable insurgent force. As the victorious Americans swept northward and onward, many of the most daring, persistent, and determined fighters of the insurgent army, who had escaped our forces, had assembled at this naturally strong place, under the command of General Pio del Pilar, one of their fiercest fighters.

Though several reconnoissances during the month of November developed the fact that a considerable number of insurgents—probably about one thousand—were at San Mateo, yet General Otis, the Governor General of the islands, refused to permit an attack on the place until he could have enough troops

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at his disposal to garrison and hold the town after its capture. Thus it happened that the attack there was delayed until the end of General Lawton's northern campaign. But as soon as General Lawton should return, it was the intention of General Otis to take San Mateo, garrison, and hold it; and to follow up the movement with a campaign south of Manila, which was to be commanded by either General Lawton or General Schwan. Thus the taking of San Mateo became, so to speak, the link which joined the northern with the southern campaign.

About eighteen miles northeast of Manila is the town of San Mateo.* It lies in the Mariquina Valley on the east bank of the Mariquina River. The Mariquina, frequently called the river of San Mateo, rises in the mountainous country northeast of San Mateo and flows in a westerly direction through a gap in the mountains to the north end of the Mariquina Valley; thence it runs along the north side of the town of Montalban; and thence, turning south, continues down the Mariquina Valley past the towns of San Mateo and Mariquina, and empties into the Pasig River at the town of Pasig, about eight miles from Manila. About two miles south of the town of Mariquina is the Pumping Station, from which point the water supply for Manila is carried through a large aqueduct to the city. The main road from Manila to San Mateo passes through the Pumping Station where it crosses the Mariquina River; thence it continues up the east bank through the town of Mariquina to San Mateo.

During the greater part of the war between the United States and the insurgents, an outpost line of American troops, about twenty-seven miles in length, surrounded the city of Manila. On the northeast side of the city the line extended in a southeasterly direction from Caloocan on the north side of Manila to the aqueduct at Deposito on the east side. In December, 1899, this portion of the outpost line was held by the Twenty-Ninth Infantry, U. S. V., with headquarters at La Loma Church; and by the Twenty-Seventh Infantry, U. S. V., with headquarters at Deposito. Opposite Deposito at the Pumping Station, four miles in front of the outpost line, was stationed the Eleventh Cavalry, U. S. V.

* See map to illustrate campaign.

Such was the situation when, on December sixteenth, General Lawton with his staff returned from his northern campaign and arrived at Manila. On December seventeenth he began his plans for an attack on San Mateo. On that day I received a dispatch ordering me to report to him at once. Soon after my arrival at his house, where I found the general awaiting me, we were joined by Colonel Lockett, Eleventh Cavalry, U. S. V., by General Lawton's adjutant general, Lieutenant Colonel Edwards, Forty-Seventh Infantry, U. S. V., and by Major Byram, Twenty-Seventh Infantry, U. S. V. The general told us that he was going to make a short campaign with a cavalry and infantry force; that he desired to have Colonel Lockett command the mounted troops, which would consist of one or two squadrons of his regiment, the Eleventh Cavalry; that he had selected me to command the dismounted troops, which would consist of one battalion of my regiment, the Twenty-Ninth Infantry, one battalion Twenty-Seventh Infantry, and one dismounted squadron Eleventh Cavalry. He ordered us to be ready to march from the outpost line by six o'clock on the following afternoon; but gave us no inkling as to where we were to go or what we were to do. In fact, he said to his adjutant general in our presence, "If anyone should ask where we are going tell him you don't know."

On the afternoon of December eighteenth, General Lawton sent for us again. He then told us that our objective was San Mateo, and that we would march thither that night. Though it had rained on the seventeenth and still continued to rain at irregular intervals on the eighteenth, the general remarked that he thought the storm would soon end; and that inasmuch as there was a fairly good moon, we ought in any event to be able to make a night march to San Mateo, and be ready to make the attack there early in the morning. Little did he then think that this storm which was but the beginning of a typhoon would increase in strength and fury during that night and the following day. Accordingly, he told us his plans and wrote out our orders which were in substance as follows:

Colonel Lockett, starting between the hours of twelve and one o'clock that night with one mounted and one dismounted squadron of his regiment, was to march north from the Pump-

ing Station on the west side of the Mariquina River to the cross roads near the bluff, which lies about a mile due west of San Mateo, and there leave the dismounted squadron and have it report to Lieutenant Colonel Sargent upon his arrival; thence he was to continue north, if practicable, with the mounted squadron cross the river at Montalban and sweep rapidly down the valley through San Mateo. Or in case he should be delayed by the difficulties of the march and daylight should come before his reaching Montalban, he was to cross the river at any practicable point above San Mateo, turn to the right, and proceed, as before directed, to sweep through San Mateo.

Major Byram with his battalion, starting from Deposito in time to reach the bluff opposite and west of San Mateo by six o'clock in the morning, was upon his arrival there to report to Lieutenant Colonel Sargent.

Lieutenant Colonel Sargent, starting from La Loma Church with Major Hawthorne's battalion, Twenty-Ninth Infantry, in time to arrive at the bluff opposite San Mateo by or before six o'clock in the morning, was upon his arrival to take command of all foot troops assembled there; and at the moment of the attack by Colonel Lockett with the cavalry from the north was to attack San Mateo from the west. But in case the cavalry should not attack before 6.30 A. M., he himself was to attack without waiting for the cavalry. If the insurgents at San Mateo showed a desire to surrender, he was to receive such surrender and under no circumstances permit the destruction of property of any kind. After the occupation of San Mateo he was to detach Major Byram's battalion to hold and garrison the town.

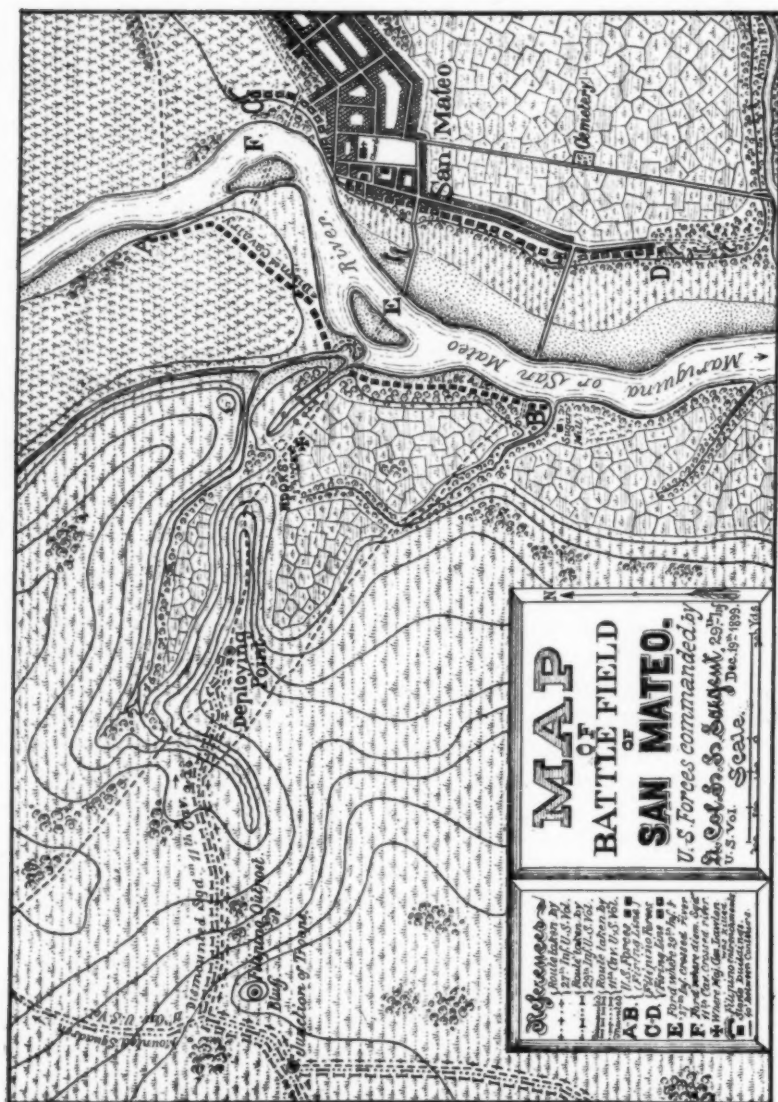
The instructions received from the general as to the supplies for our commands were that each soldier should carry with him at least one day's rations; that the supply train for the battalion of the Twenty-Ninth Infantry should follow it from La Loma Church; and that the supply trains for the two squadrons of the Eleventh Cavalry and the battalion of the Twenty-Seventh Infantry should assemble at the Pumping Station, ready to proceed northward by the main road on the east side of the river as soon as San Mateo should be captured and the insurgents driven from the Mariquina Valley.

Having received the above orders we all set out for our

commands ; but before leaving I told the general that I would start from La Loma promptly at ten o'clock that night, and asked him with which column he would march to San Mateo. He replied that he intended to march out with me, and would probably be at La Loma by ten o'clock ; but that if he did not arrive there by that time, I should not wait for him. He then added that in any case he would be on the bluff overlooking San Mateo in time for the attack next morning.

That night all three columns started for San Mateo. Major Byram's battalion marched out from Deposito at about eight o'clock P. M. ; Major Hawthorne's battalion from La Loma Church at ten o'clock P. M., and Colonel Lockett at nine o'clock P. M. started his dismounted squadron under Major Sime from the Pumping Station, and himself followed with the mounted squadron at midnight. I marched with Major Hawthorne's battalion. General Lawton had not arrived. The supply train, under command of Second Lieutenant Pike, Twenty-Ninth Infantry, took up the march in our rear. We had about twelve miles to go. Part of the way we followed an old road ; then it dwindled into a trail ; then losing the trail, we took our way across the country guided solely by the compass. The night was very stormy ; in fact, a typhoon was passing over the islands. The wind blew fitfully, and the steady downpour of rain covered the ground with water ; the mud was deep and the streams were rushing onward like torrents. During the long hours of that fearful night, through storm and mud and rushing streams, and over slippery trails, through brush and bamboo and high, wet grass, and rice fields covered with water, the command plodded and waded on, determined to reach the bluff in time. Though the men were greatly fatigued, they made no complaints. They were cheerful, hopeful, and full of grit.

At ten minutes after five o'clock in the morning we arrived at the bluff overlooking San Mateo. Neither of the other two columns of my command had arrived ; nor had the cavalry squadron passed on its way to Montalban. No sooner had we halted than the weary officers and men dropped to the ground in the wet grass for a few minutes' sleep. After a short rest they were awakened ; and as soon as they had breakfasted on



hard tack, bacon, and cold coffee, I began preparations for an attack. I had just given my instructions to Major Hawthorne, commanding the battalion of the Twenty-Ninth Infantry, when General Lawton rode up with his personal escort, consisting of Troop I, Fourth Cavalry, and part of his staff. He seemed much pleased to find me there. It was then half past six. He had ridden all night. He told me that Colonel Lockett with a squadron of cavalry was just behind him, and that only two or three miles back were the battalion of the Twenty-Seventh Infantry and the dismounted squadron of the Eleventh Cavalry. He stated also that he had come by way of La Loma Church, but that I had been gone half an hour when he arrived there; that he had passed the supply train on the road about five miles out from La Loma, but expressed a doubt as to whether it would ever get through; and added, that in attempting to follow my trail he himself had for a time lost his way.

I learned afterwards that the general had followed my trail for a considerable distance; but that owing to the darkness, the thickets of underbrush and bamboo, and the heavy rain, had finally lost it, and had himself by mistake turned in the wrong direction. While marching in this direction, he had come face to face with Colonel Lockett's and Major Byram's commands, and believing that they had lost their bearings, had turned them back. It was some time before they could convince him of his error; but they finally succeeded, and thereupon resumed their march towards San Mateo.

From the bluff almost due east, about a mile distant, is San Mateo on the further side of the Mariquina River.* Bordering the east bank, the town extends up and down the river about six hundred yards. Directly in front of the town the river makes a bend—flowing from south to west, thence again south. And near the angle thus formed on the east side were the principal buildings of the town. From the bluff almost to the river the country is hilly, and at the time was covered with brush, high grass, and thick undergrowth. Between the hilly country and the river, extending about a mile along the stream, were rice fields about three hundred yards wide. From the bluff the trail to San Mateo could be seen in places passing over the

* See map of battle-field.

hills, and it appeared to cross the river directly in front of the principal buildings of the town.

I believed that a ford would be found near where the trail appeared to cross the river, and that there was a greater probability of my being able to cross there than at any other point. My plan was to have Major Hawthorne deploy his battalion along the last range of hills across the trail, and then to push forward, if possible, to the river bank, so as to cover a space about half a mile wide. During this advance detachments were to take possession of the hills or high ground lying well to the front near either flank, and bring a strong fire upon the enemy, should he be in force in or near the principal buildings of the town. The line having arrived at the river, the flank companies were to cover the ford with a strong converging fire, while the centre pushed across and entered the town. I purposed also to put the Twenty-Seventh battalion on the right and the dismounted cavalry squadron on the left of the Twenty-Ninth as soon as they should arrive; whence, if possible, they were to push forward and cross the river.

As the general and myself walked to the edge of the bluff overlooking San Mateo, I explained to him that I had already arranged to begin the attack with Major Hawthorne's battalion, Twenty-Ninth Infantry. He said, "Sargent, I wish to give you full swing; go ahead with your command and carry out your plan." I replied, "General, I should like to explain my plan to you." I then pointed out the town of San Mateo, the trail leading thither, the natural features of the country in our front, and explained to him my plan of attack. He listened attentively, approved of the plan, and remarked that if I needed any reinforcements before the rest of my command arrived, I could call on his personal escort. He added that he did not anticipate much resistance, even though the reports thus far received seemed to indicate quite a force of the enemy at San Mateo.

In the meantime Colonel Lockett came up with the cavalry squadron; and thereupon the general ordered him to move across the hills to the northeast of our position, cross the river between San Mateo and Montalban, drive back any enemy found there, and sweep down from the north on San Mateo.

Colonel Lockett, having begun his movement, was followed immediately by Major Hawthorne with the battalion of the Twenty-Ninth infantry, who descended the bluff and advanced directly east along the trail leading to San Mateo. He occupied the last range of hills nearest the river, and there formed his battalion in line preparatory to crossing the rice fields in his front.

When Major Hawthorne started, I told the general that I would leave a man to direct the rest of my command to the front when it arrived, and that I was going forward with the Twenty-Ninth. He replied, "Go ahead, I will be with you in a few moments." These were the last words I ever heard him speak. And as I descended the trail, he stood there on the bluff in white helmet and yellow slicker, his large form clearly outlined with the sky for a background, the stern features of his face showing the decision, energy, and determination of his character, himself intensely interested in the movements of his troops going on about him.

I had scarce reached the foot of the bluff when Captain Atkinson, Twenty-Seventh Infantry, reported to me with one company and a platoon of Major Byram's battalion. I ordered him to push forward on the trail, told him his position would be on the right of the Twenty-Ninth, and that I myself would show him where to go. When I arrived behind the last range of hills where Major Hawthorne was forming his line, I left the trail and moved to the right with Captain Atkinson's command in order to place it in position on the right of the Twenty-Ninth. On account of the difficulties encountered in crossing streams and pushing through thick brush and undergrowth, this movement took some time.

In the meantime General Lawton with his escort and staff descended the bluff in rear of Captain Atkinson's command, and advanced along the trail directly towards San Mateo; and at the same time Major Hawthorne sent forward his line by rushes across the rice fields, and almost gained the bank of the river before the insurgents opened fire upon him.

The firing began at fifteen minutes past eight o'clock. I at once dismounted and hurried to the front. General Lawton had just arrived on the firing line, and as I descended the hill in

order to cross the rice fields, I saw the general in his white helmet and long yellow slicker coolly walking up and down the firing line only about three hundred or three hundred and fifty yards from the enemy's entrenchments. A few moments later Lieutenant Breckinridge, one of the general's aides, was wounded; and as I crossed the rice fields I saw General Lawton himself acting as one of the four litter bearers, helping to carry the lieutenant from the field.

A few minutes after my arrival on the firing line, Captain Atkinson's command arrived on the right of the Twenty-Ninth. Our line now extended about three-quarters of a mile up and down the river opposite the town. Most of the men were fairly well protected behind a ridge of earth at the edge of the rice field. They were only about three hundred or three hundred and fifty yards from the insurgents who, on the other side of the river, held a line of twelve or fifteen entrenched positions, from each of which they were firing at us by volleys of six or eight rifles. In addition, they occupied positions behind an almost impenetrable bamboo hedge, which extended in front of a portion of the town.

At the time there was much firing from both sides. The men of my command had fairly good positions, and were doing effective work. They had received orders to fire low, and were making the insurgents very uncomfortable, whenever they showed their heads above their entrenchments. On the other hand, the insurgents, though they fired many shots, were unable to do effective work. Most of their volley firing went high and wild; they took little or no aim, and consequently made very few hits.

During the whole morning the rain had fallen almost continuously. Now and then it would slacken and almost cease for awhile, only to begin again. The river, already high, was rapidly rising. The men were soaked through and through. The rice fields which they had just crossed were submerged; and many of them lay almost at full length in the water behind the ridge of earth from which they were firing, and which protected them from the fire of the insurgents. Had the river not been high and almost impassable, we could have quickly driven the insurgents out of San Mateo; but the river presented to us

a serious obstacle, which encouraged the insurgents to persevere and stick to their entrenchments.

Soon after arriving on the firing line I met Major Hawthorne who told me that General Lawton had said to him that he thought it would be best to try to force a crossing farther down the river. This surprised me at the time, because I had explained my plan to the general, and had told him that I felt quite certain we would find a ford nearly opposite the centre of the town. Afterwards, the reason for his remark became clear to me.

Accordingly, Major Hawthorne and myself went down the firing line examining the river at different points to find, if possible, a place where it could be forded. We proceeded to the extreme right of the line; but were unable to find a crossing. I then started back, and had gone but a few steps when I met Captain Sewell, of the general's staff, with instructions. He said that the general had sent him to tell me that the dismounted squadron of the Eleventh Cavalry, having arrived at his headquarters during my absence, on the right of the line, he—the general—had taken the liberty of putting it into position on the left of the Twenty-Ninth; and also, that he wished me to be careful not to fire into the mounted squadron, in case it should cross the river and sweep down through San Mateo. This was at fifteen minutes past nine o'clock. Afterwards I learned from Major Rodgers, of the general's staff, that it was at this moment the general was killed. After helping to carry back Lieutenant Breckinridge to the temporary headquarters, which were behind a hillock about two hundred and fifty yards in rear of the firing line, and almost directly opposite the main portion of the town, he remained there a few minutes, asked Lieutenant Breckinridge how he felt, spoke a few words about the dispositions for the fight, and then starting again towards the firing line, was shot, when he had advanced but a few steps. He was hit just above the heart. His face was towards the enemy. He fell to the ground and lived but a few moments. Thus died on the battle-field, this great, heroic soldier; large of frame and large of heart, with an indomitable will and a power unsurpassed for overcoming obstacles—a soldier who had never shown fear, who knew not what fear was.

After receiving the general's orders from Captain Sewell I continued my efforts to cross the river. About three hundred yards below the central portion of the town, I finally discovered a place where the river was quite wide, and though the brush and undergrowth hid the near side from view, the farther side appeared quite shallow. I thought that by advancing two companies in line some part of the line might possibly find shallow water and be able to cross. I therefore gave Companies E and G, Twenty-Ninth Infantry, orders to advance. They went forward with a rush and a cheer; but the river was too deep. It was impossible to cross. The first step or two into the water the men went over their heads; two soldiers lost their guns; and one gallant officer, Lieutenant Clark, Twenty-Ninth Infantry, made a leap over the bank into the stream, and came near drowning. I saw at once the futility of the effort, and withdrew the companies back to the firing line.

During this movement the companies on our flanks kept down the fire of the insurgents. Captain Shields, Twenty-Ninth Infantry, on the left of the Twenty-Ninth battalion, had pushed forward his company and had gained a good position quite close to the river, almost directly in front of the general's headquarters. From this position he kept up a continuous and effective flanking fire by volleys down the river on the enemy's entrenchments; and Captain Atkinson, Twenty-Seventh Infantry, on the extreme right of the line, also had a flanking fire up the river on his entrenchments.

About the time this effort was made to cross the river, Major Byram arrived with the greater part of the remainder of his battalion. He came on to the firing line behind the right of the Twenty-Ninth battalion, and his men were posted in the intervals between the platoons and squads already there. During the night a platoon or part of a platoon of his command had become separated from him, and in consequence did not arrive in time to take part in the action.

Meanwhile the dismounted squadron of the Eleventh Cavalry, under Major Sime, was getting into position on the left of the Twenty-Ninth. His men were advancing towards the river, and were delivering an effective fire to their front, and also towards their right flank, where the enemy had a short line of

entrenchments protecting the north side of the main buildings of the town.

After satisfying myself that the river could not be crossed below the town, I decided to go up to the general's headquarters, report the facts to him, and request that I be permitted to cross directly in front of the town in accordance with my original purpose. I had not yet learned of his death. As I approached his headquarters, I saw him lying at full length upon a stretcher in the open field. His large white helmet covered his face. I glanced towards the sad, sorrowful faces of his staff. The helmet was lifted, and I saw that the end had come. The rain fell upon him ; he felt it not. The sound of musketry, the rush of waters, the turmoil of battle, the fury of the storm, were about him ; he heard them not. He was dead.

Captain King, Eleventh Cavalry, one of the general's aides, having been sent to inform Colonel Lockett of the death of the general, I returned to the firing line directly in front of the main buildings of the town. As a result of our losses it had now become of still greater importance that we should cross the river and capture San Mateo at the earliest possible moment ; for unless we should drive the insurgents from the east bank and get possession of the main road leading from San Mateo through Mariquina to the Pumping Station, we could not, without the greatest difficulty, transport General Lawton's body and the wounded to Manila.

Before describing the efforts made to find the ford and cross the river, let us consider for a moment the situation between the contending forces. At fifteen minutes past ten o'clock the several parts of my command were in good positions and doing effective work. Wherever practicable, companies, platoons, and squads had pushed forward to the very edge of the river and were delivering a telling fire by volleys against the enemy. So hot was this fire that in several instances they succeeded in driving the insurgents entirely out of their entrenched positions, and in forcing them to flee back into the stone buildings of the town.

On the other hand, though the insurgents had kept up for two hours a continuous fire upon our lines, they had made very few hits. Our casualties thus far numbered but one killed and

eight or nine wounded. Yet, under these circumstances, the insurgents had not given up all hope. Inasmuch as the river was rapidly rising, they saw that if they could prevent our crossing for awhile, they might be able to hold us in check for several days. In fact, the deep, almost impassable river in our front necessarily gave them a feeling of security. To cross the river was the problem before us, and unless the insurgents should fall back, it had to be done under fire.

At first I was unable to discover any ford near where the trail appeared to end ; but upon further examination, I noticed that the trail led from the west bank into the stream upon a tongue of land which extended down the stream, and thence turned towards the bank from which it projected. This tongue of land had the shape of a horse shoe. At the point where it approached the shore the bank was almost perpendicular, and about eight or ten feet high.

Moving forward in front of the firing line at this point, Major Hawthorne and myself discovered that the trail ran down almost to the foot of the bank where it made a sharp turn, and thence ran directly across the river. At this place the river formed two streams with a sand bank between them. Across the sand bank could plainly be seen the trail. This was the ford which, lying as it did directly opposite a high bank, had been so hard to find. Doubtless the fact that the trail bent upon itself in this way, and appeared to lead to the bank from which it entered the river, caused General Lawton to tell Major Hawthorne to attempt a crossing farther down the stream.

The ford having been discovered, I ordered Major Hawthorne to force a crossing. Companies E and G, Twenty-Ninth Infantry, started across, and other companies quickly followed. The river was wide and the water breast high ; but no sooner had the men arrived on the farther side than with a cheer they rushed into the enemy's entrenchments. Had it been necessary, Major Hawthorne was prepared to cover the ford with a strong fire in order to protect the leading companies during the advance ; but there were no casualties in crossing. No sooner had the insurgents seen that we had discovered the ford, and were surely coming than they began retiring from the right of their line and rapidly withdrew through the town to the hills. In a

few minutes the greater part of the command had crossed, and the town was occupied. I immediately ordered several companies in pursuit; but they returned shortly, as the insurgents had made good their escape into the hills back of the town.

In the meantime, Major Sime on the left of our line had pushed forward his dismounted squadron into the angle made by the bend in the river, north of the main buildings of the town, and had succeeded, in one way and another, in crossing there with a part of his command. In fact, a small number had crossed there in a boat a few minutes before the main crossing had been made at the ford.

At eleven o'clock A. M. the crossing was about completed. I immediately selected a building for headquarters, issued the necessary orders for the protection of the town and the comfort of the soldiers; and sent a messenger to Major Rodgers, Fourth Cavalry, to inform him that we had captured San Mateo, and that he could now cross the river with General Lawton's body and the wounded. A few minutes afterwards the general's body was brought across and placed in an empty room in the headquarters' building, where it was guarded by sentinels from Company H, Twenty-Ninth Infantry. Here both the living and the dead found shelter from the storm. The rain fell in sheets; the very streets were streams. And the living spoke sorrowfully in low voices of him who had fallen; but he knew it not. He was dead.

The building selected as headquarters had been the headquarters of the insurgents; and here we found a rifle, several officers' swords, a few hundred rounds of ammunition, and a considerable amount of insurgent mail. Many of the letters were still sealed. The postmark on one indicated that it was from the Captain General of the insurgent army; and another was directed to the Adjutant of General Pio del Pilar. For several weeks it had been reported and rumored at various times that General Pio del Pilar was in command of the insurgents at San Mateo. At the time I was unable to verify the truth of these reports; but I have since learned that he left San Mateo a few days before the fight, and that General Geronimo commanded the insurgent forces there during the action.

The total strength of my command numbered eight hun-

dred and eighty officers and men ; but there were absent from the fight a guard with the wagon train and a detachment from Major Byram's battalion. Not counting the general's personal staff and escort, there were actually present in the action at San Mateo under my command about eight hundred and twelve officers and men.

It is somewhat difficult to estimate with accuracy the number of insurgents at San Mateo. A Spanish prisoner whom we released there, who had been in the hands of the insurgents for more than a year, stated that there were one thousand insurgent soldiers at San Mateo. I doubt whether there were so many. I estimated the number at about five hundred, of whom two hundred and fifty or three hundred were armed with rifles.

The losses on our side during the action were one killed, nine wounded, and one captured. Among the wounded were three officers: Captain O. T. Kenan, Twenty-Ninth Infantry, First Lieutenant W. V. Cotchett, Eleventh Cavalry, and Second Lieutenant E. L. D. Breckinridge, Seventh Infantry. I deem it a very fortunate circumstance that we were able to surprise the insurgents and gain a position close to the river before they discovered us and opened fire. With their natural tendency to shoot high, had our troops been discovered at six or seven hundred yards from the enemy's position coming over and down the hills between the bluff and the river, our losses would have been much greater.

The losses of the insurgents, found on that and the following day, numbered twenty-four killed and two wounded. But their actual losses were doubtless greatly in excess of these figures ; for it was learned from reputable sources that during the action a number of killed and many wounded were carried off through the town. A resident on one of the principal streets stated that sixty dead and wounded were carried past his house.

Thus far nothing had been heard or seen of the mounted squadron commanded by Colonel Lockett. After crossing the river under fire between San Mateo and Montalban, he found a number of insurgents north of him, and deemed it necessary to turn in that direction and drive them back. After charging them several times with his troopers mounted, he routed them, drove them through Montalban, and captured the town. At

four o'clock P. M. he returned to San Mateo. Being the ranking officer, he assumed command, and gave the necessary orders for escorting the body of General Lawton and the wounded to Manila on the following day.

Having marched all night and fought all morning, both officers and men were wet, hungry, and greatly fatigued. But there were no complaints. Though the supply train had not arrived, everyone knew that Lieutenant Pike would have brought it through if it had been possible to do so. On the following morning, just as the Twenty-Ninth battalion marched out of San Mateo as part of the escort to General Lawton's body on its way to Manila, Lieutenant Pike appeared with his train on the bluff west of San Mateo. He had had a most arduous and difficult march; and he deserved much credit for the energy he had displayed. The river being too high for him to cross with the train, he was sent an additional guard and ordered to return to La Loma Church.

The officers and men of my command behaved magnificently throughout the action; conspicuous bravery was apparent everywhere. I saw no faltering and no shirking. The officers walked up and down the firing line and took no cover whenever there was any work to be done. Major Hawthorne, Twenty-Ninth Infantry, displayed conspicuous bravery at all times and under all circumstances, and his battalion did splendid work. Major Byram, Twenty-Seventh Infantry, being so far in rear when the first movements began, was not able to reach the firing line with his command until some time after the action opened; but after his arrival he was cool and brave and did good work. Major Sime, Eleventh Cavalry, pushed in his dismounted squadron on the left of the Twenty-Ninth, gained a position close to the river, and there opened an effective fire. In fact, he showed excellent judgment and added considerably to the enviable reputation he had already gained.

General Lawton's personal staff, too, consisting of Major Rodgers, Fourth Cavalry; Captain King, Eleventh Cavalry; Captain Sewell, Assistant Quartermaster; First Lieutenant Fuller, Ordnance Department, and Second Lieutenant Breckinridge, Seventh Infantry, as well as First Lieutenant Stewart, Fourth Cavalry, who commanded the general's personal escort,

Troop I, Fourth Cavalry, were present during the action, and performed their dangerous duties with energy and courage.

For the gallantry and pluck displayed by Captain Owen T. Kenan, Twenty-Ninth Infantry, U. S. V., after being wounded, I recommended him, in my report to the War Department, for a brevet as major U. S. V. I also recommended First Sergeant Frank Gutches, Company H, Twenty-Ninth Infantry, U. S. V., and First Sergeant William D. Bonham, Company E, Twenty-Ninth Infantry, U. S. V., for commissions as second lieutenants in the volunteer forces, as a reward for their fearless and gallant conduct displayed during the action.

An account of the action of San Mateo would scarce be complete without a reference to the records of the weather at the Manila Observatory for the month of December, 1899. They show that during that month only one typhoon disturbed Manila. It came from the Pacific and from the seventeenth to the nineteenth passed over the Visayas and the island seas, giving abundant rains and moderate winds on the island of Luzon. The effect of this depression was the heavy rains that fell in and about Manila, the total amount of which reached 5.634 inches. On the nineteenth alone 3.898 inches were received in the gauges of the Observatory. With one exception—December, 1889—the rainfall of December, 1899, exceeded that of any December in the past thirty-three years. Thus it appears that nearly six inches of water fell on these three days of December, and that nearly four inches fell on the nineteenth alone.

Few of the troops who marched from the outpost line of Manila on the night of December eighteenth and fought at San Mateo on the next day will ever forget that storm. How, wet and bedraggled, slipping and falling, they plodded on all night long, through rain that came down in sheets, through rushing and overflowing streams, through brush and bamboo and wet grass waist high, and across rice fields knee deep in water. Few there are, too, who will ever forget how, on the afternoon of the day when Lawton fell, the very flood gates of heaven having seemed to break loose the land was deluged by a sea of water.

When Napoleon lay dying at St. Helena, it is recorded that a storm was raging on the island; and that in his delirium,

amidst the shock of the billows and the battle-like roar of the waves, his last words indicated that he believed himself again with his army in fierce conflict on the tumultuous field of Marengo.

And let it be recorded now, that on the nineteenth of December, 1899, during the tumult of battle and the rage of the storm and the roar of the rushing river, the indomitable Lawton, shot through by an insurgent bullet, fell dead at San Mateo.

CHARACTERISTICS OF THE CAMPAIGNS OF FREDERIC THE GREAT, NAPOLEON AND MOLTKE.*

TRANSLATED BY CAPTAIN NATHAN S. JARVIS, U. S. A.

(From "*Internationale Revue über die gesammten Armeen und Flotten.*")

GREAT and decisive military exploits are always due more to the high personal qualities of the leaders who achieve them than to the intrinsic merits of the armies which they command. Where the commander understood how to combine daring with discretion, and possessed the skill and faculty of operating his command according to his will, and with this combined coolness and confidence, to associate his love, honor and fame with energy and courage, he has always brought about important results.

These characteristics we find incorporated in the three greatest commanders of the past century, and we learn how they were able to accomplish the most brilliant exploits known to military history. Although these qualities stamp the campaigns of Frederic the Second, Napoleon the First and Moltke with a striking similarity, they differed however in many details, dependent upon the times in which the three great heroes lived. For a campaign in any particular period of a nation's history, however brilliant its generals, is dependent upon a variety of coincident factors. These factors are determined by the condition of the ordnance of the period, and of the tactical manœuvres, dependent upon the same; upon the perfection of the lines of communication; the national resources; upon the politico-economical and social conditions; and likewise upon those principles concerned in the subsistence and organization of its armies.

* This sketch seems particularly valuable in view of the fact that the original article was scrutinized and corrected by Field-Marshal Count von Moltke; and that simultaneous with its appearance an article by Lieut.-Col. Rouset was published in France, bearing the title, "Les Maîtres de la guerre, Frederic—Napoleon—Moltke," and which is based on hitherto unpublished studies of the renowned French general Bounal, who is considered one of the most efficient officers of the French army.—[*Internationale Revue*, 1901.]

All these elements that decide the issue of a campaign, are subject to continual change, so that naturally each military era bears a character peculiar to itself, and develops its own strategy.

The campaigns of Frederic the Second, Napoleon the First, and Moltke's strategy, demonstrate the truth of this argument.

If we closely consider the salient features of the campaigns of these three commanders, we see that they all acted upon the offensive whenever conditions permitted; sought out the opposing army for prompt attack in order to bring about a decisive battle and the destruction of the enemy.

Frederic the Second had alone, among all his contemporaries, realized the soundness of this principle, and through the force of his own spirit acquired this conception of the true nature of war and the conduct of a campaign. Among all the leaders of his time, the great king recognized that the destruction of the hostile forces was the one object in view.

He knew that every advantage acquired by strategy, was merely preparatory to a definite result, and was of value only so long as his opponent himself did not force a battle. He therefore carried out his campaigns on this principle, but naturally he was dependent upon the conditions of those times in Prussia, which temporarily, even under favorable strategic plans, often compelled him to defer a decisive battle and observe caution.

With this view to seek out the enemy for prompt attack, was also associated the fact that Frederic planned all his battles as final, with the exception of those brought about by sudden contact, as at Lowositz and Lignitz, or in the event of surprise, as at Hochkirch. And his cardinal principle was especially emphasized in the "Seven Years' War": at Prag, at Leuthen, Zorndorf, Kunnersdorf and Torgau, in each of which the complete destruction of the enemy ensued. In this respect, Frederic the Second was ahead of his times, and even surpassed Napoleon, whose disposition of troops for battle did not always contemplate this prompt destruction of the enemy.

The genius of Frederic was particularly well demonstrated in the Seven Years' War and in the years of 1756 and 1757 were marked by the strategic defensive, with tactical offensive; but the last years of this war, however, by the strategic defensive

alone, in which he gradually succumbed to the superior forces of the enemy.

The situation in the year 1756 permitted Frederic to accomplish a complete victory, such as Napoleon in his campaign had tried, as also did Moltke in 1866 and in 1870.

Frederic could, in the beginning of the Seven Years' War so plan his battles as to direct his main force against the main force of his enemy; penetrate to the heart of the country and there destroy or disarm his troops.

The offensive had to be taken against Bohemia by the Saxons and Silesians, while smaller detachments of his army had to assume the defensive against Russia in the east and France in the west. Frederic intended in the crushing of Austria, to conquer all his other opponents with one blow. The plan was simple but magnificent, and was undertaken in the spirit of Napoleon's and Moltke's strategy, the latter of whom carried out the same principles a century later.

No geographical point could have been selected, as the object of attack, but the Austrian army itself, whose destruction could force peace.

Frederic's plan was in the year 1756 frustrated, but it succeeded in the year 1757, and in fact in a similar manner to that pursued in the year 1866, with this difference—Frederic's three Saxon columns entering Lausitz and Silesia had selected Leitmeritz as a point of concentration, while the German armies in 1866 chose Gelschin as a centre.

This strategically effective plan could not truly lead to the expected results, since the tactical errors at Kolin frustrated it, while later the victory at Königgrätz in fact brought about the destruction of the Austrian army and compelled her to sue for peace.

Simultaneously the other German enemies of Prussia were overwhelmed, and this proves how correct was the point of view upon which he planned his campaigns of 1756 and 1757. His precepts were utilized by another Hohenzollern, and effected with one stroke a far-reaching result. (Moltke.)

Napoleon had taken to heart the advantage to be derived from the experiences of others, and likewise all his campaigns were based on the strategic offensive. He was however sup-

ported to a greater degree by the political, economic and military conditions of his times than was Frederic. Moreover, while Frederic was restricted by the limited facilities for warfare which marked his times, by constant anxiety as to his magazines, and to strict confinement to his lines of communication, and above all, largely dependent upon newly levied troops, Napoleon, on the other hand, found political and international laws completely different, controlled a great national army and could move with much greater ease. The newly introduced requisition system no longer compelled a strict limitation to the great highways. The withdrawal of troops into winter quarters was no longer in vogue and Napoleon, who always considered his personal honor and fame rather than that of an hereditary royalty and his fatherland, could make war, untrammelled by a variety of restrictions, which limited Frederic's freedom of action.

The energy with which Napoleon prepared for war, recruited new armies, assumed the initiative, and carried war into his enemy's country, as well as the skill and foresight with which he set his large columns into motion, concentrating them for an overwhelming and surprising result, naturally excited the astonishment of old Europe, for she still moved in old ruts, and did not appreciate the approach of a new era.

It should be mentioned, however, that Napoleon was not always so successful in uniting his columns, as the campaign of 1809 is sufficient to prove.

The ignorance and want of skill of his opponents, however, permitted him to emerge as victor. He so understood strategy as to be able to surprise and attack his opponent, crushing him, and recklessly and energetically pursuing the defeated army. We can appreciate this particularly at the opening of the campaign of 1805, where the Austrian troops were attacked by a superior force in Bavaria. And Napoleon in the "three emperor fight" at Austerlitz, tactically controlled the situation, and by a rapid series of victories occupied Vienna and compelled peace. Again we see him in the war with Prussia in 1806 attacking the Prussian forces while in the act of concentrating; so that the decisive battles in the eastern part of the Thüringen mountains were brought about.

And here again his bold energetic pursuit, immediately after the battle, contributed largely to the full results of his victory. The great success which favored Napoleon, through his strategy in both these campaigns, decided him to adopt the same principle in his later military movements.

So in the campaign against Russia and even after the reverses of 1813, when he hastily assembled all his available forces, and again crossed the Rhine towards Thüringen, there striking the allied armies, and once more emerging as victor.

As before stated, Napoleon in his conception of the "strategic offensive" was extraordinarily favored by the indecision, weakness, envy and bad leadership present in the allied forces, which weakened, if not destroyed, unanimity of action. He was, moreover, usually able to operate with a superior force, and therein alone the chances were in his favor, which were greatly increased by assuming the offensive.

The principle of the "strategic offensive" we see repeated in higher and more effectual proportions in Moltke's conception of campaigning. In the two campaigns of 1866 and in that of 1870, very different political conditions prevailed, than those which Napoleon met. Also quite a different type of army had to be set in motion, than in the earlier wars. Prussia and Germany did not dare, however, to assume the offensive, till the opponent had declared war; but as soon as this took place they applied themselves with energy to their task; their armies were mobilized as quickly as possible, led at once into the hostile country, and thereupon terms were dictated to the opponent.

In both wars, Von Moltke's antagonist had been prepared for hostilities quite a long while, and his armies were either massed or held in readiness. Nevertheless, the widely separated columns of Von Moltke advanced into the hostile territory, fighting their way until they could unite for a decisive battle; and as Frederic almost immediately after the victory of Prag, continued his advance toward Daun (although the largest part of the hostile army must have been shut up in Prag), so we see, after the battle of Königgrätz, the Prussian army advancing towards Vienna after detaching a strong section of their army to capture the fortresses of Olmütz and Josephstadt.

We again see, after the bloody battles of Vionville, Grave-

lotte and St. Privât (after the detachment of the first and second army corps) the army of the Maas, with the third army corps continuing the advance towards Paris.

Not for a moment was the goal lost from view. Decision was promptly followed by action, with results such as Napoleon in his most fortunate campaigns only had achieved.

Frederic II., after the unfortunate outcome of the battle of Kolin, was placed on the defensive, which he endeavored to make as effective as possible. The campaign of 1757 against the French, after his retreat from Bohemia, terminating in the brilliant victory of Rossbach, and the march on Breslau bear witness to his energy. Both flank marches towards the west and the east in the face of the enemy, under the unfavorable strategic, tactical and political conditions, ended in a most brilliant victory; and again changed the military status to the advantage of the king.

The policy of Frederic, as demonstrated in these instances, to strike one opponent a short energetic blow and throw him back without continuing the pursuit too far; then promptly to seek another portion of the theatre of war, was also seen in Napoleon's campaigns of 1813 in Saxony, and 1814 in France, where he was compelled to hurl back the allied columns which poured out from the border lands of Silesia and Bohemia.

Von Moltke's strategy made marked use of such offensive tactics in the campaign of "Main," when he threw the weak Prussian forces, now against Bavarians, now against the Hessians and other south German troops; satisfying himself with a momentary result and not continuing the pursuit too far. Similar conditions prevailed after the investment of Paris by the first German army on the North, which now struck the hostile army at Amiens, and then their forces on the march from Rouen. The German divisions which faced the hostile armies on the "Loire" and "Loir," which latter threatened the investing forces before Paris and Belfort, were obliged to pursue these same tactics.

The conditions under which the German troops had to manoeuvre were difficult, for, if they succeeded in capturing the two great armies at Sédan and Metz, there were still hundreds of thousands of new fighting men ready to replace them in the

defense of their country. The country was, moreover, entirely hostile, and the backbone of the German armies was necessarily detained before the French capital, to prevent any attempt to raise the siege. To supply these great armies was associated with many difficulties. The transportation of siege materials was all the more difficult because the railroads were partially destroyed or interrupted by fortifications. To feed armies of such dimensions had never been undertaken outside of the campaign of 1812, and it placed upon the German staff enormous responsibilities. That these tasks were performed with such astounding skill and success shows how superior was Moltke's leadership to all other generals, even that of Napoleon.

After Frederic, as a result of the fortunes of war, had been forced on the defensive, he was obliged to content himself with single blows against his opponent, doing as much damage as possible to their separate columns, thus equalizing his small numerical strength and continuing hostilities, in the hope that his opponent might become exhausted. He always appreciated the advantage of a moral superiority and the advantage to be derived from taking the initiative, so that he finally emerged from his hard-fought battles as victor, notwithstanding the number of his antagonists and their larger armies.

During the latter periods of his military activity Napoleon was forced to assume the "strategic defensive." But he was never content while on the "defensive" to abandon the "offensive." Even after the bitterest defeats he tried immediately to gather new forces, and in the same way as Frederic would have done, to assume the "defensive at one point, the offensive at another." In this way he tried to equalize conditions, in view of the numerical superiority of his enemies, without, however, averting his final overthrow, which came about as much from political as from military forces.

From what has been said it is evident that all three of these great military leaders had one object in view—that is, to so adjust their forces by a timely march that they could promptly assume the offensive, thus deriving advantage as to time, place and strength. Von Moltke, moreover, made extensive use of "security and information," exercised by sending out in advance large independent divisions of cavalry and endeavoring to march

by separate columns, which united promptly at a critical moment for attack. We also find this principle incorporated in Von Moltke's plans, that the strategic object was not the capture of so-called strategic points, but the destruction of the enemy's forces, which would terminate more promptly the war. The weakness of their opponents was always quickly recognized and utilized by the three great commanders.

The "strategic defensive" was only adopted when absolutely necessary, and this was changed at once to the offensive as soon as opportunity permitted.

Their general plan of operation up to the repulse of their opponent was the same. Each commander limited himself to the strategic advance; and the strategic offensive was abandoned when the conditions of the opponent and his own position rendered it wise. While the will of the Commanding General is final, nevertheless, to the subordinates is left a certain amount of independence of action, so long as they follow the essential views of their supreme commander.

The general campaign is carried out with greatest energy and boldness, so as to assure success even in the most difficult positions or in the event of a reverse, to develop renewed strength for fresh efforts.

All these characteristics are emphasized, not only in the strategic operations of the three great commanders, but also in the tactical manoeuvres which they practiced in the movement and location of their troops preparatory to battle and in the conduct of the fight.

Frederic the Great planned all his battles, as before stated, for decisive result, then to cut off the retreat and completely crush his opponent. He rarely failed to arrange for an intact reserve, which should be ready at any critical moment.

The so-called oblique battle formation, whose masterly employment we see demonstrated in the battle at Leuthen, would, to a certain extent, supply the place of a reserve, as the king literally commanded, that, if the enemy is attacked with one wing, the other must always be refused; this was utilized, either to support the attack, or, in the event of a reverse to cover the retreat of the other wing. The enemy's wing which formed the point of attack, should then be "turned" as far as

possible, so that it could be attacked from all sides, and crushed by concentrated fire. Frederic then had already adopted the principle of the one offensive, and the other defensive wing. * * * The impression that Frederic, however, always attacked only one wing is not correct, nor that Napoleon always made his point of attack the enemy's centre, in order to utilize the wedge-shaped formation. Napoleon * * * engaged his enemy at many points, until he discovered a weak one, which he then attacked with utmost energy, utilizing his reserve. There is no doubt that he was not only the teacher, but also the model for battle tactics. His principles might always be adopted, not only for armies, but for subdivisions of an army when in action.

He did not adhere to any narrow rules, nor did he ever give a formula to be adopted in any battle. His restlessness knew no standstill; but had constantly new aims. Therefore he adhered to well-known rules only when the situation demanded it. Almost every battle that he fought gives a picture of his tactical intuition, and to appreciate this man, the study of his battles is indispensable. Let us emphasize, for example, the battle of Austerlitz, where Napoleon conceived a new battle formation, which for many long years has been accepted as the pattern for offensive movements. This battle explains the circumstance, that report of its victorious outcome acted like an electric spark throughout all Europe, and in the tearful eyes of the English statesman whose life's purpose had been the undoing of Napoleon, fell the first burning rays of that sun of Austerlitz, which, rising blood-red in the east, for ten long years hovered over Europe, until it sunk in the west at Waterloo.

As in the conduct of his battles, Napoleon likewise availed himself promptly of the advantage acquired in his victories. The strategical advantages acquired by Frederic the Great after Hohenfriedberg and Zorndorf were quite inoperative, and are not to be compared with that advance by Prince Murat after the battle at Jena, when he rode 188 miles in 45 days toward Warsaw and scattered the hostile armies, rendering them powerless. This is the greatest utilization of a victory in the history of war, and which, in its destructive results, was not approached by the

pursuit of our cavalry after the battles of Wörth, Bomont or Le Mans.

Giving full recognition to the tactical skill which Napoleon displayed in the disposition of his troops, before and after his battles, it should be remembered that his opponents were attacked while in antiquated battle formations, and were no match for this new genius.

Whether he, with such an opponent as Moltke, would have met with similar success, naturally excites our critical judgment.

This much we can say, however, without presumption, that the uniform and exact arrangements carried out by the German leaders preparatory to the battles of Königgrätz and Sedan, and the skillful disposition of troops in both battles, as likewise on the day of Gravelotte and St. Privat, were tactical results which may well be placed side by side with those of Napoleon.

Since we now, from this brief presentation of campaign results, have acquired the conviction that Frederic, Napoleon and Moltke in their strategy followed very similar methods, which varied less in the system than in the situation in which each was placed, so it appears difficult to weigh the merit of their methods, and we are forced to compare the personal equation of the three great leaders.

Should we, however, in spite of the apparent impossibilities dare to compare the relative worth and greatness of the three great generals, particularly to determine which of the two leaders, Napoleon or Moltke, was the more skillful, we must take into consideration their qualities as statesmen, before coming to any conclusion.

Frederic at the head of a small state differing from the others in a few branches of administration, but considerably weaker in territorial strength could be no Alexander and would have like Charles XII. in his insatiable greed soon have dashed his head to pieces.

With his limited powers he undertook nothing that seems preposterous.

In this respect, however, how entirely different appears the attitude of Napoleon.

Of unlimited ambition, discontented with his results, he ex-

claimed at one time in boastful language: "In our times, no one has ever attempted great things; it is for me to set an example."

So he rushed on his headlong course, undertaking things, the impracticability of which he was aware and with partial results, his designs always climbed to such immoderation that the capacities of the half of Europe did not suffice to their fulfillment. So long as Napoleon had only the weak, ignorant and demoralized to deal with, he was fortunate, and triumphed, but when the strength of the people and their leaders arose then he collapsed in helplessness. "To combat strength," says Leopold von Ranke, "was not given to him."

Fortune, which so long had favored him, now deserted him, and no wonder, for fortune in the long run favors only the truly good. The catastrophe of Moscow, the defeat of Malo-Jaroslav—etc., buried all his courage. Uncertain whither he should turn, he cast himself helplessly into the arms of misfortune. What a difference between him and Frederic the Great after the defeat of Kolin! In the height of fortune as in misfortune, the ways of Frederic and Napoleon differ.

For, while the one in both situations avoided with heroic strength of spirit the dangerous abyss, the other rushed precipitously downward, and buried, in his fall, the day dreams whose fulfillment seemed often so near.

So we see that the more skillful statesman and general is not the Emperor, who ventures upon the impossible and is dashed to destruction by the resistance which he invites, but the dutiful, earnest King, who above all, displaying a wise discretion, carries his political purposes to a victorious issue, be the perils great or small.

Since the time of Frederic and Napoleon our military and political conditions have so changed and expanded that, clearly for this reason, a campaign of that period and of the present can hardly be compared.

For indeed armies will be now not measured by the ten thousand, but by the hundred thousand combatants and therein alone to a certain measure the final issue be predicted; but such issue will be reached, largely through the perfection with which all preparations have been made—even to the smallest

detail ; with which all determining conditions have been explained and prepared.

It is not simply a question of caprice and opinion ; all rests upon well matured principles, which are carried out in logical sequence. The most difficult, apparently impossible, problems will be solved under the most difficult conditions ; for man completely controls the instrument to their successful issue, and so will always the desired results be reached.

In spite of the energy and boldness which marked Moltke's campaign, he displayed rare mercy and consideration for the people whose country he invaded, and exercised rigid military justice only in extreme instances.

The restoration and maintenance of peace was alone held in view, and the unavoidable measures for this purpose adopted. After the establishment of peace, his war measures provided for the complete submission of his opponent. The allies of the German coalition were treated with consideration, and upon the Austrian state, only a small financial demand was made ; even upon France itself no unreasonable indemnity was exacted. So above all things, the war methods of our great field-marshal were marked by wise moderation, self-control and nobility of spirit, which were lacking in the French usurper, who, on this account, could not stand comparison with Moltke.

If now, we cast a glance into the future and draw a picture of the wars to come, we shall see that the determining factors have changed much in the last decade, and we must reckon with entirely new conditions. Other European powers have applied themselves industriously to the improvement, armament, and education of their armies.

Each power has striven to assure itself of the advantages to be derived from the initiative and the surprise of its opponent. If, therefore, the separate powers, armed with equal means for war, come into collision, the methods of attack and campaign must depend largely upon the character of the generals.

There is, however, one thing they should accept as a certainty, that such quick and surprising results as those of the German armies in 1871, will, in future wars, be out of the question. Not only the numerous strong fortresses will offer obstruction and delay, but also the mobilization of large armies,

and the difficulties in providing for them, will, to a large extent, retard their mobility.

With the growth of armies, the task of handling them has increased, and in spite of improved means of communication, the responsibilities of the superior command have become serious and multitudinous.

Characteristic of modern warfare will be the constant alternation of battles and marches, for that army which attains advantage in strategic movements, will be in position to acquire tactical advantages.

PEACE PREPARATION FOR THE WAR DUTIES OF THE CORPS OF ENGINEERS, U. S. ARMY.

BY CAPTAIN WILLIAM L. SIBERT, CORPS OF ENGINEERS, U. S. A.
(LATE COMDC. BATT. OF ENGRS. 8TH ARMY CORPS.)

PAR. 1677, A. R., states the following as the purely military duties of the Corps of Engineers:

"1677. The duties of the Corps of Engineers comprise reconnoitring and surveying for military purposes, including the laying out of camps; selection of sites and formation of plans and estimates for military defenses; construction and repair of fortifications and their accessories, including the location and supervision of construction of all buildings in or within 1 mile of any fortification; supplying, by purchase or otherwise, and distributing the necessary submarine mining material and electric-lighting supplies for sea-coast fortifications; planning and superintending of defensive or offensive works of troops in the field; examination of routes of communications for supplies and for military movements; construction of military roads and bridges;" * * *

An examination of the scope of these duties shows that the Corps of Engineers, including the engineer troops, is one of the most important elements in the war machine.

The function that each part of an army is to perform should be known by all the other parts, and each part should prepare itself during peace for the execution of its full duty in war. There should be no conflict of authority in the field; no department trying to assume the duty of another.

The first duty specified is,—*Reconnoitring and surveying for military purposes, including the laying out of camps.*

Reconnaissances are made for the purpose of ascertaining the position and movements of the enemy, and for obtaining topographical details, for tactical purposes, that cannot be shown on the small scale general maps. Reconnoitring is therefore essentially a war duty. The first class of reconnaissances can be studied, but it is very difficult to simulate it in peace. Reconnaissances for obtaining topographical information can be practiced in peace, and the road maps and sketches

NOTE.—The accompanying illustrations show a few of the problems that were encountered and solved by the engineer troops serving with the 8th Army Corps in the Philippines.—W. L. S.

made in this peace practice are of permanent value, if properly made and systematically filed.

Spanish troops, in their campaigns in the Philippine Islands, nearly always made road maps of the routes travelled by the different columns. Some of these were made many years prior to the American operations there; still these road maps, when reduced and reproduced, were of great value to the American army, and often formed the only detailed topographical information known prior to the movements.



ON GEN. LAWTON'S LINE OF COMMUNICATION.

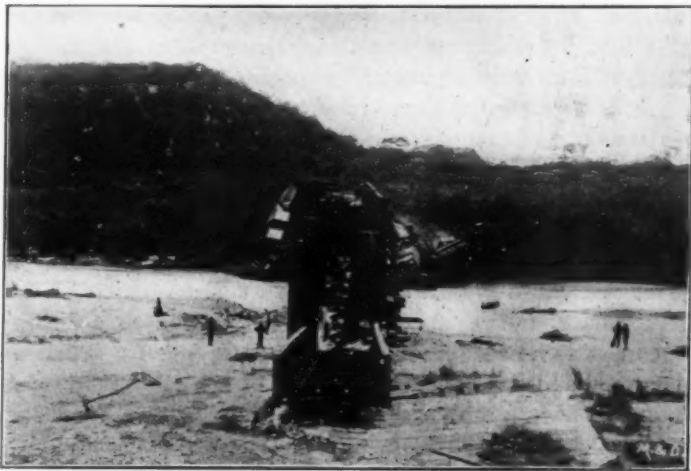
A reliable military map is an absolute essential in planning and executing a campaign, and the making of such maps is one of the most important duties of the Engineer Corps, and one that can only be done during peace.

The course of instruction at the United States Engineer School, including practical astronomy, fits engineer officers especially for this work, and their service afterwards keeps them continually in touch with it. Every improvement of a river or harbor includes hydrographic and topographic surveys. The use of surveying instruments is necessary in nearly all engineering.

The increase of the Engineer Corps, both officers and en-

listed men, with the transfer of the submarine mine defense of the country to the artillery, makes the present a very opportune time for the commencement of this much needed and long deferred work.

Military maps cannot be made without expending some money, and the Engineer Corps cannot make the necessary peace preparation for furnishing reliable military maps without the aid of Congress. Such maps, however, could be cheaply made of those sections most likely to become theatres of hos-



GEN. MACARTHUR'S LINE OF COMMUNICATION.

tile operations, by organizing, under the direction of the Chief of Engineers, a military map department, including photography. This map department could, by placing itself in close touch with State Engineers, County Surveyors, and Chief Engineers of railroads, etc., and with all departments of the general government in which topographical information is collected, obtain a large amount of valuable map information at a small cost. The road maps, sketches and topographical work done by all the army could be directed and made with a view to their use in supplying deficiencies in military maps. Utilizing all the information obtained as indicated above, the best maps possible should be made and held ready for issue. There should

be always on hand detailed or tactical maps, as well as small scale general maps, of each possible theatre of operations.

A system once started under one head, utilizing all reliable map information, would soon produce good results, and by continually correcting these maps with all new information received, the War Department would be always ready to furnish commanding officers, when directed to take the field, a reliable basis on which to plan and execute campaigns.

A system somewhat similar to the above was commenced in the island of Luzon, with indications of most satisfactory results.

It being the duty of the Chief Engineer in the field to furnish reliable military maps, the Engineer Department should be in time of peace the map information bureau of the War Department, and Congress should provide means for preparing all needed military maps of our own country, and for reproducing such information as it is practicable to obtain concerning the topography of other countries.

While the Corps of Engineers cannot, during peace, make the necessary military maps without the aid of Congress, it can prepare itself, by practise and by the adoption of a definite system, with its equipment and transportation, for reducing, combining and reproducing quickly, all available map information. A definite way of doing things should always be adopted and practiced in peace by an army. Practice in topographical work is an essential in an army officer's education; it enables him to know a good or bad military position when he sees it, and to go or conduct troops to any part of the field of operations without becoming lost. Modern conditions do not develop the topographical faculty possessed by the earlier generations of this country and it should be developed in the officer artificially, and can be best so developed by surveying and reconnoitring, As much peace practice as is possible is therefore desirable and essential in this class of work.

The next duties specified are :—*Selection of sites and formation of plans and estimates for military defenses ; construction and repair of fortifications and their accessories, including the location and supervision of construction of all buildings in or within 1 mile of any fortification ; supplying, by purchase or*

otherwise, and distributing the necessary submarine mining material and electric-lighting supplies for sea-coast fortifications; planning and superintending of defensive or offensive works of troops in the field.

The construction and repair of all permanent fortifications land and sea-coast, are largely peace duties. The construction of sea-coast fortifications is a duty that the Engineer Officer is continually practicing, and it is safe to assume that permanent land fortifications will never be constructed to any great extent in this country. Positions made important after hostilities are commenced will be protected by field-works, or semi-permanent fortifications. All examples of similar work should be studied by the officer, and the enlisted force should be trained in the practical part of laying out such works, constructing profiles, making the needed special forms of material, etc. This duty, however, so far as the actual construction of such works is concerned, after the plan has been drawn, is simple, and the troops should not devote too much time to it.

The peace practice for selection of sites and formation of plans and estimates for military defenses, planning and superintending of defensive or offensive works of troops in the field, is altogether an officer's duty. Engineer officers are required, in their examinations for promotion, to prepare plans and estimates for harbor defenses. A certain harbor having been designated, peace practice in the formation of plans and estimates for temporary land defenses in certain assumed theatres of operations, under certain assumed conditions, could also be had. Such practice would be valuable to the officer, and might be valuable to the country, in case of hostile operations in the assumed territory. An intelligent and liberal use of hasty intrenchments will play an important part in future wars, and while it is difficult to simulate war conditions as regards this work, valuable practice can be had by making assumptions as to locations of armies, etc., and studying out the critical points most likely to demand such intrenchments.

The next duties named are :—*Examinations of routes of communication for supplies and for military movements.*

After the theatre of operations has been decided upon by the Government, and the general commences to form his plan

of campaign for the accomplishment of certain purposes, it is necessary that he should have definite information as to the practicability of certain lines of communication for transporting certain supplies in a certain time, and as to the practicability of certain roads for military movements with certain impedimenta, etc. It is the duty of the engineer officer to examine such routes and render an expert opinion to the general as to such practicability, and as to the time necessary to produce the required practicability. Peace practice as to such work as



CONDITION OF RAILROAD WHEN CAPTURED FROM INSURGENTS.

this can be had by causing engineer officers and troops to accompany practice marches of military bodies. An intimate knowledge of the difficulties of land transportation can only be gained by close association with such difficulties, and the time necessary to overcome road obstructions can be estimated only by men experienced in such work. Peace practice is, therefore, essential in fitting an engineer officer for his duty in giving an expert opinion on the above questions.

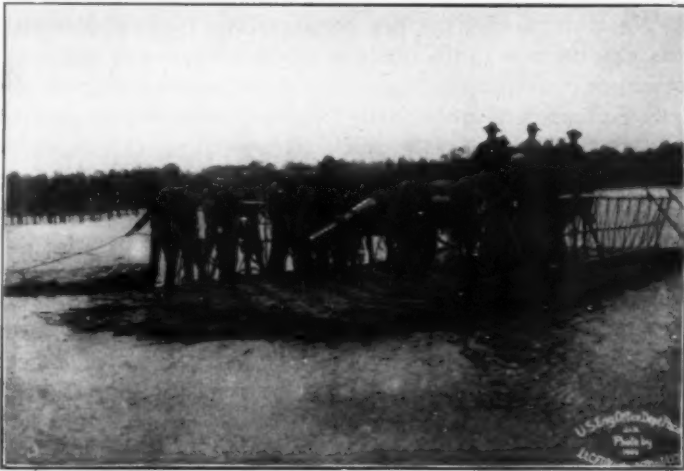
The last duty specified is *the construction of military roads and bridges.*

On the proper performance of this duty depends very largely the success of the campaign. The land transportation of an

army is a problem easily solved if there are practicable routes for the vehicles of transportation.

General Lawton, when telegraphing to General Otis concerning the part his division was to take in the extended campaign in Northern Luzon in the summer of 1899, epitomized the possibilities of his division's work by saying it was "a question of transportation."

By transportation he meant not only the necessary wagons, teams and pack-mules, but a practicable route by which these



BAMBOO RAFT FOR FIELD ARTILLERY.

vehicles of transportation could reach their designated places in time. The two departments of the army most directly concerned in efficient land transportation are the Quartermaster's and Engineer Departments.

The railroad service in the United States has no equal in any country. The United States army has as good, or better, wagons and harness than any army in the world. The American horses and mules for pack and harness purposes have no superiors and few equals. It would therefore seem that, with a proper organization, the Quartermaster's Department could easily perform its part, provided the duties of the Engineer Department were properly performed.

The resources and manufacturing capacity of the United States make it an easy matter for the Subsistence, Ordnance, Medical and Quartermaster's Departments of the Army to purchase or to manufacture their supplies and prepare them for transportation. The Quartermaster's Department can, with almost equal facility, outfit itself with the vehicles of transportation, and can satisfactorily transport all these supplies if it has a practicable route over which its vehicles of transportation can move at the proper or calculated rate. It is one of the duties of the Engineer Department to provide this route.

The material element in warfare is ever increasing, which means an increase in the needs of transportation, and the overcoming of correspondingly greater difficulties in preparing the route. Campaigns are won by decisive blows in unexpected quarters, which implies the quick transportation of armies by difficult or unexpected routes, such as that followed by Napoleon in the Marengo campaign and by Lee in the second Bull Run campaign.

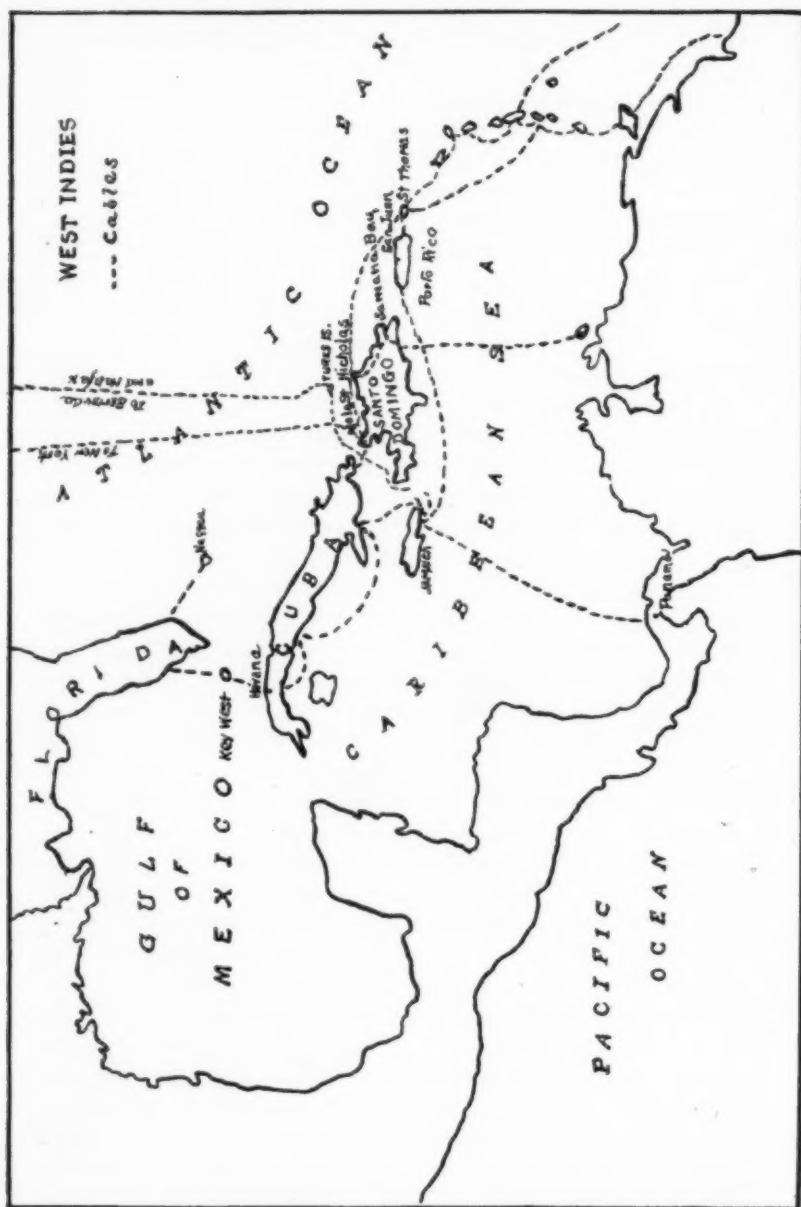
No manual can lay down the solution of many of the problems that the engineer will be called upon to solve under unexpected and trying circumstances. Resourcefulness in the engineer is an absolute necessity, and by the degree in which an officer possesses it, his worth in the field is measured. Resourcefulness can be largely developed by practice, and many of the field duties of the engineer, as regards road and bridge building, can be duplicated in peace. Practice marches of troops over such routes as are used in striking telling blows in war, are possible in peace in many sections of our country. And such practice marches, over roads so selected as to furnish many difficult problems for immediate solution, is excellent and essential preparation for war.

The value of an enlisted man in the engineer force is measured by his ability to do something. And the average young American can be taught in peace to do almost anything. Men who can do rough carpenter work are most in demand. While it is necessary that engineer troops should be taught the duties of line troops, as regards drill and fire discipline, it is as much necessary that each company should be, to some extent, a manual training school, and that there should be in each or-

ganization men capable of doing anything. It is impracticable to enlist first-class mechanics, and it is a peace duty to make the necessary number of mechanics in each organization, and to practice them in just such emergency work as is liable to occur in war.

The adoption of a definite system, with its equipment and transportation, for an efficient performance of each class of work is an essential peace preparation. The deficiencies in equipment and system noticed during the recent war can be easily overcome, and the proper equipment, with its transportation, for each class of work can be studied out and the officers and men practiced in its use during peace.

The enlisted force of the Engineer Corps was so small prior to the recent increase, and the submarine mine defense of the country absorbed so much of its time, that it practically lost touch with the remainder of the army, and a great many of its legitimate duties were absorbed by other departments. Being now released from submarine mine work, and with its additional strength, as authorized in the last reorganization of the army, the Corps of Engineers can now undertake its full duty as specified in the regulations, and can prepare itself in peace for an efficient performance of those duties in war.



THE SELECTION OF SUITABLE MILITARY STATIONS IN THE WEST INDIES.

BY MAJOR W. A. GLASSFORD, U. S. A.

THE position and number of suitable military posts in the West Indies is, at the present time, a question which involves considerations more of a local than those of a general strategic nature. It is more important to choose such posts with a view to facilitating the surveillance of the neighboring localities than to consider their general strategic importance. Our presence in the West Indies is not so much at this time on account of any possible European interference on the American continent, within, or in the vicinity of the islands, as on account of the people that inhabit them.

In case of future difficulty between any European power and the United States, strong fortifications would be much more useful on our own coast than on outlying islands. In a war with a naval power superior to our own, fortified insular positions might serve to hold back the enemy the length of time required to besiege and to take them. But, whether an enemy would or would not direct his first attention to such outlying positions would depend upon whether such outlying posts were located strategically on passage ways where his commerce must pass, and thus be a menace to his important trade routes. Positions thus located, though distant from our shores, would have to be reduced by the enemy before all his efforts would be concentrated on our own coasts. The reduction of such posts, however, would be only a question of time, for in tropical countries provisions for a long siege are not easily preserved.

If we are able by any means to postpone the time when we have to meet an enemy with our entire force, more time is given to collect, equip, and train our volunteers. Time thus gained is of great importance, especially in a country where regular military forces are small and the main dependence is placed upon volunteer armies. In this respect, strategically

considered, are outlying military posts valuable, otherwise they weaken us. Such posts should be fortified to such an extent as to make siege operations a necessity for any enemy who attempts to reduce them; their number should be as few as possible, and, while placed along the trade routes should, at the same time, facilitate the surveillance of the colonial population in their neighborhood.

The primary object of maintaining our present control in the West Indies is to further our trade relations, which are dependent upon the maintenance of public order in these islands; and in view of the nature of the population, this public order can best be maintained by some demonstration of force in the neighborhood. War vessels that appear from time to time in different places in the West Indies would be more impressive as a demonstration of force than fortifications; therefore few fortified stations are necessary and these should be selected, as far as possible, with a view to facilitate naval operations. Naval movements can best be made from posts centrally located, and on passage-ways between the islands, as from such positions access is facilitated to points situated either within the Caribbean Sea or on the Atlantic side of them.

In view of the fact that the logic of events may call upon the United States to exercise military control over a large part of the West Indies, it would evidently be a matter of economy to select certain points favored by their strategic situation on trade routes, by which as few garrisons as possible would suffice for the surveillance of these islands.

Not only because outlying posts increase our vulnerability to attacks from states practically powerless to injure us in our own continental territory, but on account of the tropical character of the climate, which is always unfavorable to the Northern soldier, the military stations in these parts should be as few as possible. A few strategic points in the West Indies would practically serve the same purpose as a general military occupation of the islands themselves and be much less expensive. A glance at the map of the West Indian Archipelago shows that two at least of these strategic points should be chosen in the neighborhood of the Windward and the Mono passages, as by so doing we constitute a military line of defense

reaching from Key West to the Virgin Passage, a distance of over a thousand miles. The establishment of posts on these straits alone would be equivalent, in a military point of view, to the extension of the Florida Peninsula to the island of St. Thomas.

The strategic importance of these straits cannot be too greatly insisted upon for the purpose in view. They are the passages through which a great part of the commerce enters or leaves the Caribbean Sea. Their position is such that from them almost the entire navigation of the West Indian waters can be watched. Also in view of the probable construction of an inter-oceanic canal, their importance is still more enhanced, as being in a direct line between Europe and the Isthmus, the greater part of European traffic via the canal will pass through them.

Between these passages is the island of Santo Domingo, containing populations which could under no circumstances be of any use to the United States in time of war, but they might be detrimental. Left wholly at their disposition, some of the magnificent seaports of this island could be easily seized by a European naval power in time of war and used at once as a base for offensive operations against the United States. Considering the nature of the population in this island, the same measure of precaution must be taken as regards it as are now observed toward those of the other islands, and for similar reasons, because in all that part of the West Indies not controlled by Europe we are practically responsible for good government, hence this population must ultimately, as is the case of Porto Rico, fall under the control of the United States, or come under its supervision, as in the case of Cuba. It is therefore evidently not advisable to allow strategic positions, which might be seized and fortified by an enemy in time of war, to long remain unoccupied on these highways of commerce.

On examining the coasts in the neighborhood of the Windward and the Mono passages, it is found that the most suitable places for the establishment of stations in these localities are Mole St. Nicholas and Samana Bay, on account of the superior harbors with deep entrances and the shore facilities which are found near them. No other sites comparable to them can be found near these passage-ways.

Mole St. Nicholas is at the northwestern extremity of Hayti, 180 miles in a direct line from Samana Bay, and is directly in the Windward Passage. The harbor at this place is excellent, being 2 miles wide at its entrance and 3 miles deep, with a minimum of 6 fathoms of water, while most of it is much deeper. It can be easily defended by works at its entrance.

Samana Bay at the eastern end of Santo Domingo is so close to the Mono Passage that it practically commands it. This bay is of general oblong form, and about 30 miles long by 10 miles wide, with a deep water basin 10 miles long and 5 miles wide at its inner extremity, with good holding ground. It is sheltered by parallel mountain ridges on its north and south sides, some of them rising to about 1500 feet in general height. The mountain ridge on the north side constitutes a peninsula about 10 miles wide. This peninsula can be easily fortified at the low isthmus that joins it to the island against attack by land, thereby making the coaling station secure, and the bay can be defended by works at its entrance. The bay is remarkably well sheltered from the prevailing trade winds and equally well protected against cyclones by the high lands on both sides. The two entrances to this great body of water are deep and capacious, and the bay itself affords shelter for an unlimited fleet.

These two harbors, one facing west, the other east, are among the finest in the West Indies, and are situated in the centre of the West Indian Archipelago. Their situation practically commands the passages through which the greater part of shipping enters the Caribbean Sea. These two deep harbors afford the United States all the necessary facilities to exercise surveillance over Cuba and control over Porto Rico. Moreover, the two positions are astride nearly all the cable communications of the West Indies, and the possibility of control of these cables touching the island of Santo Domingo is an essential feature of this military line.

It is evident in case of the acquisition* of St. Thomas, that the usefulness of that position will be much increased by positions on the Windward and the Mono passages, and the estab-

* See article "Porto Rico and a Necessary Military Position in the West Indies," by same author, J. M. S. I., January, 1901.

lishment of a more continuous line of military communications between it and Key West.

It must not however be understood that these stations in the West Indies will be a source of military power to the United States, any more than the colonies of Spain were a source of military strength to that country; their value to us consists rather in facilitating a task which has, through events, been forced upon us. In time of war, they might place us in a similar position to the Spaniards, holding outlying possessions, with a weak navy. Had the people of Spain, during the late war, contented themselves with permitting their government to keep her navy near her own ports, and leaving her troops in the islands to take care of themselves, the problem of capturing these colonies would have been more difficult, and even when accomplished, then would have come the problem of dealing with the Spanish navy at a distance from our own shores; and it is plain that had not Cervera's fleet been shut up in Santiago, the American invasion would not have taken place in its vicinity, but at some point nearer to our own shores. The real naval bases of continental countries are the ports of their own coasts.

Key West is the principal strategic point for the United States near the West Indies, because of its situation with reference to the Mississippi River, its sea communications on the Atlantic Coast, and its connections with internal railroad communications. Key West, while it is the continental base of the United States in any military operation in the West Indies, is favorably situated in one of the great entrances to the Gulf of Mexico and the Caribbean Sea. Having at Key West a port and coaling station guarding one of the great water passages to the Caribbean Sea, it is essential to secure strategic posts upon the other passage-ways into this sea, to defend our line of military communications with Porto Rico.

It is worthy of note that the security of the United States against European powers operating in the waters of our Southern border was greater heretofore than at present, from the fact that Cuba belonged to a comparatively isolated and weak European power. Before the Spanish War, the existence of insurrectionary elements in Cuba gave added security to the United States, but since the withdrawal of the Spanish Government from the

island, the continuance of such elements act to lessen our security, hence there is greater necessity for additional precautions on this frontier. Under present circumstances, there is far greater danger of a combination between the island populations and a possible European enemy than ever before.

The expulsion of the Spaniard has in no way modified the characteristics of the people. It was the turbulent element of the population in Cuba, and not wholly Spanish rule, that caused the late war. Hence having gotten rid of the Spaniard, the control of the remaining disturbing element has been shifted to this government. The conversion of a race, so much in need of civilization, into an industrious laboring population, must come from a very gradual change of conditions, such as will by security of all interests, develop a prosperous agriculture in those islands. It is also improbable that any modifications of the existing conditions will be brought about through emigration. Emigration in the future is likely to be what it has been in the past, not from the north, but from within the same climatic zone.

In reviewing the conditions which affect our security in the West Indies, and our duty in protecting our interests, consideration of the character of the population is necessary to form a correct appreciation of the military situation of the United States in regard to these islands. That the establishment of these posts will soon become a necessity, if not already plain, will be shown in the near future by the attitude of the insular populations toward the United States, and also by the situation resulting from the completion of an inter-oceanic canal. The character of the population in all the Antillian group is essentially alike. It must be noted that in these islands the characteristics of the Indians, who first peopled them, remain, and these have been continued by a strong emigration, mostly from Africa, by a people not much different from themselves in civilization. The inhabitants of these islands will resist Anglo-Saxon civilization for a length of time so great that it need not be taken into consideration for the present purposes. Their affinities and sympathies lie rather in the direction of certain European and African nations than with the people of the United States.

The people of this country naturally shrink from the responsibility of governing these tropical countries and providing the necessary military forces to properly control the situation in which events have placed them, and will exert themselves in this direction only so far as conditions make interference necessary for their interests and safety. It must now be plain that our security is best subserved, not by many and strong fortifications detached from our own coast, but by increasing our power on the sea. An increase of naval strength should always follow an extension of trade and the acquisition of outlying territory, and outlying possessions render naval stations necessary. On the other hand, the number and fortified strength of posts in distant colonies will depend upon our own comparative naval strength. A superior naval power would probably at once blockade our important island stations with their fleet, and that fleet would have to be met by our fleet. The ability of such stations to hold out would, in the end, depend on our navy.

From whatever point we view our military situation, it is evident that the safety of our colonies and the protection of our foreign commerce depend largely on our power upon the sea, and this power may be greatly increased by a judicious selection of naval stations.

Juneau, Alaska, Sept. 30, 1901.

THE SIGNAL CORPS IN SEA-COAST DEFENSE.*

BY CAPTAIN LE ROY S. LYON, A. C., U. S. A.,

ACTING SIGNAL OFFICER, DEPT. OF THE EAST.

IN text-books on Security and Information, the principles and methods of securing the safety of an army, by obtaining and transmitting information, are fully set forth, but the service referred to in these books pertains to armies in the field—to the information obtained by a cavalry screen thrown to the front and flanks of an army and transmitted in various ways to the Commander-in-chief. Little, so far as I know, has been said about the special and difficult duties that will fall upon the Signal Corps in time of war, when the attack comes from without against our sea-coast. These functions and duties, as will be shown later, are even more difficult, intricate and diversified than those above referred to in connection with an army in the field.

In the United States, an efficient sea-coast defense is the most important problem to be solved in connection with the general defense of the country. I think the reasons for this are evident. We have four principal borders to defend. On the north the Canadian, through which England could make her attack; on the south the Mexican, through which any European nation stronger than Mexico could initiate an invasion, provided, of course, her navy was large enough to make it possible for her to detach a sufficient number of ships to successfully convoy transports carrying troops. At the present time, attack by way of Canada seems improbable. Invasion through Mexico appears still more improbable, since our navy is sufficiently strong to prevent attack along that route by any European nation except England, and England would not use it so long as Canada remained hers. The remaining points of attack are the Atlantic and Pacific seaboard.

In the language of a British officer, "America must be assaulted only on her coast, her harbors destroyed, her shipping

* Read before the 2d Signal Corps, N. G., N. Y., Nov. 7, 1901.

destroyed and her seaport towns laid waste. These are the only evils she has to dread."

The elements of defense against such an attack are briefly mentioned in the following language, quoted from the Board of Engineers, in a report dated 1826. "The means of defense for the seaboard of the United States, constituting a system, may be classed as follows:

First: A Navy.

Second: Fortifications.

Third: Interior communication by land and water, and

Fourth: A Regular army and well organized militia."

Among fortifications should be included submarine mines and torpedoes which are operated therefrom in close coöperation with the guns. In addition and corresponding to what is known in Security and Information as a "Cavalry Screen," there must be supplied either by the navy for its own use, or to the fortifications for independent scouting, what is popularly known as a "mosquito fleet"—small, fast boats to act as scouts to obtain and transmit information to the forts. Upon the information furnished by these boats and by look-outs established at prominent points, depends the security of sea-coast defenses. This is a work that can be most efficiently done by a signal corps, a body of men trained in times of peace in the method of securing and transmitting information. It is hardly necessary for me to enlarge upon its importance, but a few remarks upon its special value under certain conditions may be of interest.

Let us assume that all entrances to ship channels are properly fortified and garrisoned and the channels mined. It is popularly assumed that these fortifications would be the first object of attack, in order to clear the channel for an approach on the harbor, city or other point protected by the forts. As a matter of fact, no greater blunder could be made by the Commander-in-chief of the attacking fleet. It would result only in crippling the fleet or emptying it of ammunition at a critical time. A successful frontal attack by bombardment on modern sea-coast fortifications is, I think, an impossible proposition, and the navy commander who undertook it would commit an inexcusably stupid blunder, unless there were special conditions

forming the rare exception which proves the rule. How then must the attack be made? Not by the fleet at all, but by landing parties at undefended and covered points between fortifications, and by an infantry attack on the flanks or rear of the fortifications which cannot be silenced by a frontal bombardment from the fleet.

This is the enemy's hope of success and the kind of attack we must be ready to meet, and it is here that the Signal Corps, our marine "cavalry screen" must do its best work. The whole coast must have its watchers and the communications to the forts and interior garrisons and reserves must be perfect by day and night. To know where the attack is to be made is of the first importance, and this knowledge must be gained and transmitted promptly by the Signal Corps, or a similar organization. To those who doubt the practicability of landing troops directly from transports, through the surf on an open beach, for such an attack as is here assumed, I have but to recall the disembarkation of the American army on the coast of Cuba, the day before its advance on Santiago. Horses, men, guns and supplies were put overboard and successfully landed with little loss of material or time.

So do not let us enjoy a complacent feeling of security because of the excellent fortifications and guns which we possess. For that very reason we should expect the attack at some other point. What we gain by a system of sea-coast fortifications is important, as these fortifications on the exterior lines of defense must be taken before the mine fields can be destroyed and an advance made on the points protected by the fortifications. But the superiority of modern fortifications in command, in guns, in the nature of the platforms from which they are fired, and in the material for their protection, consisting of concrete and sand, over the corresponding elements of any fleet that can be brought against them, is so great that the attack will, I think, in nearly all cases, be diverted to the flank and rear of the fortifications, the fleet, perhaps, using its guns to a limited extent, only, to engage and hold the artillery garrison at its guns. So far as the effect upon the fortifications, guns, and *personnel* is concerned, this "naval demonstration," as it is called, would amount to little more than "gallery play."

Under the conditions above assumed, the value of accurate observation at all possible points of attack along our sea-coast cannot be overestimated. The transmission of this information, and the maintenance of the means of transmission, whether by telegraph, telephone, or wireless telegraphy, must be in the hands of men trained for that particular work—in other words, in the hands of the Signal Corps.

This bare outline of the general scheme of sea-coast defense will, I think, suggest to you at once the great importance and value of a perfect system of communication, both from the sea to the land and along the land to the several fortifications; thence to the land forces, which should be held in readiness at central points to meet the attack when its direction has been determined. Communication must also be maintained from the station of the general reserves to the general headquarters of the army wherever it may be. We may omit all consideration of the latter, because the telephone and telegraph lines now in existence from our seaboard cities to the interior and to Washington are numerous and efficiently handled. This, however, is not true along certain parts of our South Atlantic and Gulf sea-coast, because of the difficulties of maintaining communication between fortifications and to the protected point by aerial lines. The interruptions are caused chiefly by the severe storms so common in that section of our country. A system of cables linking together the important harbors of this coast would probably be the best solution of the problem of communication. If not deemed advisable to maintain them all on account of possible injury, it might be wise to supply the cable in time of peace and store it at suitable points along the coast until needed.

In the above remarks I have indicated, in a general way, the three principal lines of communication made necessary by the nature of the general problem of sea-coast defense.

First, communication from the scouting boats to the fortifications;

Second, communication between the fortifications of a single district;

Third, The linking together of these districts.

The Signal Corps should be responsible for the construction,

maintenance and operation of the classes of communication just mentioned. Commercial lines already established could handle communications from the fortifications to the seaboard cities where the infantry reserves will be held, and the communications from these cities to the Commander-in-chief wherever he may be.

Let us now consider what should be the functions and duties of a National Guard Signal Corps located in our seaboard towns and cities in connection with this work of communication, which might be called the problem of "security and information" for sea-coast defense.

What in time of peace should be their relations to the Regular army organization; in what way can they best help in the solution of the general problem, and finally, their duties and obligations when war shall have been declared?

Much is required of the Signal Corps of the Regular army, whose business it is to study the question of communication in all its forms, both in time of peace and of war. A great deal is required that cannot and should not be undertaken by the National Guard organizations, but there is much which can be successfully undertaken by them. I will first give a general *résumé* of the duties of the Signal Corps, United States Army, in order that you may have some idea of the amount and kind of knowledge that is required of its officers and men. Paragraph 1741, Army Regulations, reads as follows:

"The Chief Signal Officer is charged, under the Secretary of War, with the direction of the Signal Bureau; with the control of the officers, enlisted men, and employés attached thereto; with the construction, repair, and operation of military telegraph lines and cables, field telegraph lines, balloon trains and electrical communication for fire control purposes; with the preparation, distribution, and revision of the War Department Telegraphic Code; with the supervision of such instruction in military signalling and telegraphy as may be prescribed in orders from the War Department; with the procurement, preservation, and distribution of the necessary supplies for the Signal Corps and for the lake and sea-coast defenses. He has charge of all military signal duties, and of books, papers, and devices connected therewith, including telegraph and telephone apparatus and the nec-

essary meteorological instruments for target ranges and other military uses; of collecting and transmitting information for the army, by telegram or otherwise, and all other duties pertaining to military signalling."

Paragraph 390, Army Regulations, reads as follows:

"The Signal Department will furnish all military posts and sea-coast defense stations with such instruments and materials as may be necessary for the electrical installation of range-finders and the fire control system, for the purpose of intercommunication. This includes telephonic and telegraphic instruments, electrical clocks, megaphones, field glasses, *i. e.*, barometers, thermometers, anemometers, etc. Also, all such cable and land lines as may be required to connect contiguous military posts, or for connecting the posts with the commercial telegraph system. The duty of furnishing such instruments and materials is by law imposed upon the Signal Corps, and proper requisition therefor will be promptly filled."

I give below a list of some of the apparatus adopted, and very generally used by the Signal Corps for communication by telegraph, telephone and for visual signalling:

SIGNAL APPARATUS USED BY THE SIGNAL CORPS.

- | | |
|---|--|
| KIT "A" FIELD TELEPHONE APPARATUS. | Magneto generator and transmitter and receiver connected by a bar. Old type. |
| KIT "B" FIELD TELEGRAPH AND TELEPHONE:—APPARATUS. | Call is by buzz or high frequency current; transmitter and receiver separate. |
| KIT "C" FIELD TELEPHONE AND TELEGRAPH APPARATUS. LATEST FORM. | Same as "B" except that in addition there is a condenser and an arrangement for sending Morse characters similar to ordinary telegraph and for bridging to an ordinary telegraph line without interrupting the work. |
| KIT "E" FIELD TELEPHONE APPARATUS. | Improved Type "A" Kit, except that the transmitter and receiver are separate as in other kits. |

HELIOGRAPH KITS.

Field kits contain 2 four-inch mirrors, two tripods and a mirror bar by which mirrors are attached to one tripod and a shutter attached to the other tripod ; station kit has an 8-inch mirror and large shutter same size ; outfit is attached to a tree, stump or post.

**FLAGS 4 AND 2 FEET SQUARE
WITH WHITE, AND RED
CENTRES.**

Attached to jointed staffs and swung to right, left and front in signalling.

LANTERNS, ORDINARY HAND.

Held in the hand and swung to right and left of signalman.

**LANTERNS, FLASH, ACETYLENE
AND OIL.**

Attached to a tripod, and shutter to another tripod ; used same as heliograph.

TORCHES, FLYING AND FOOT.

Attached to staffs same as flags. Torch is filled by wicking and turpentine or kerosene oil. Obsolete now, as torches have been replaced by the lanterns for night signalling.

WIRELESS TELEGRAPHY.

As the Signal Corps' work in sea-coast defense will always be in coöperation with that of the navy, the codes of the latter must be thoroughly understood. These codes include distance signals by means of forms, flags and pennants, etc. ; what is known as the "Army and Navy Wigwag Code" with flags, using the Myer alphabet ; various night systems ; the Very system of projected red and green stars ; the electric system of incandescent lamps in a vertical hoist, showing either red or white lights, singly or in combination, to the number of four lamps ; search-lights, etc. ; sound code and signals for use at night or in a fog, using the gun, bell, fog-horn or steam whistle, and the semaphore system. In addition to this, the enciphering and deciphering of cipher messages by the use of the

War Department Telegraphic Code must be thoroughly understood and practically used; and instruction must also be given in the International Code of Signals for all nations. These are some of the things that must be known by the National Guard Signal Corps, if its coöperation with the Regular army in time of war is to be made effective.

In this connection we can, I think, point with considerable pride to the work done by the Signal Corps since the opening of the Spanish War. There is not time to read even extracts from the many important reports made by the members of this corps and by the commanding generals in Cuba, Porto Rico, Alaska and the Philippines, but a perusal of them would, I am sure, be instructive and of greatest interest to men in the National Guard interested in similar duties. Some of you, perhaps, were in the Volunteer Signal Corps in the Philippines and understand the difficulties and dangers through which the members of that corps passed and the obstacles that they had to overcome. The work of the Signal Corps in China is also of peculiar interest and importance. From the above outline of the nature of the work of the Signal Corps it will be seen that there is much to be accomplished in time of peace, in addition to the purely military problem of signalling. The question before us is, which of the several classes of duties above referred to had best be taken up by the National Guard organizations located near seaboard cities? The natural answer is, work in connection with the sea-coast defenses. I will therefore confine my remarks solely to the kind of work that, in my opinion, it ought to undertake, so far as sea-coast defense is concerned. In connection with your duties as National Guardsmen in riots and strikes, you must still, of course, maintain a high efficiency in the use of the heliograph, lamp, telegraph, telephone and the flag. All these will be utilized in the larger problem of sea-coast defense, but in addition there are many duties of a more difficult and important nature which you may help to solve in time of peace. It is the unaccomplished that is before you, and many of you are peculiarly fitted to devise and perfect, in time of peace, electrical instruments without which sea-coast artillery cannot be efficiently operated. It is to these that I would especially in-

vite your attention and request your interest and assistance. I will first give an outline of the work yet to be done in connection with the fire control system of sea-coast batteries, in order that you may know the nature of the systems and devices that are required, but not yet perfected and adopted.

The organization of a body of troops for the defense of a section of our coast is, under the Drill Regulations of Coast Artillery, U. S. Army, given as follows:

CHAIN OF COMMAND.

Fortress Commander ;
District Commander ;
Fire Commander ;
Battery Commander.

The battery consists of two or more guns, their equipment and *personnel* organized into a unit of command for service.

The Battery Commander is in direct communication with his fire commander, from whom alone he receives orders and to whom he is responsible for the fire direction and fire discipline of his command.

The Fire Commander is the officer having control and command of a fire command. He exercises fire control through his battery commanders.

The District Commander commands one or more forts with their fire commands, mine fields, infantry positions, etc.

A Fortress Commander has command over one or more districts.

The chain of communications from the Fortress Commander to the Battery Commander must be accurate, rapid and complete.

To quote still further:

"COMMUNICATIONS."

"These are necessary to join the several links in the chain of command. Communication will be established from fortress to district commander by telegraph or telephone; from district to fire commander by telephone or telegraph; from fire commander to his battery position finders and to his batteries by telephone and telegraph or printing telegraph; from battery position finder to guns by telephone or telegraph and by dial telegraph."

"Such an important part is played by communications that no pains should be spared in keeping them in perfect order. This can only be done by being constantly cared for and operated."

In order to thoroughly understand what is needed you should have an opportunity of actually participating in the operation of our proposed systems of fire control. This can only be done by having the several National Guard Signal Corps assigned to duty, at stated intervals, with the sea-coast artillery, and by requiring them to establish and maintain all communications during their tour of duty. For this work some of you are specially fitted by your technical training as electricians, and by the practical application of your knowledge in the daily business of commercial life. We of the army would endeavor to explain the military requirements, and you could give in exchange the benefit of your technical knowledge. Together, I see no reason why the intricate and difficult problem of electrical communication for fire control could not be successfully solved. You would gain much information on the military requirements, by constant association with the difficulties confronting us, and we would gain the benefit of your experience in commercial life. This association of the Regular and National Guard corps should be encouraged in time of peace, for then, in time of war, their service would prove more valuable, as we could at once call on men combining the technical knowledge of their profession with the military experience acquired in time of peace.

Before I close, I would like to call your attention to two subjects that have been suggested to me recently.

First. Our most immediate need is an electrical device for transmitting information from the range and position finder station to the guns. Many plans have been proposed and tested, but none have been entirely successful or officially adopted. Among these are the telautograph, two or three voltmeter systems, dial telegraph, and two forms of printing telegraphs. The latter, in one form or another, appears to me to offer a solution. Any instrument adopted must be cheap, accurate and very rapid. Cheap, because every big gun in the service must be supplied with one, and extremely rapid from the nature of the

work required of it. Ranges must be taken and transmitted, perhaps, every ten or twenty seconds.

Second. The matter of maintaining the service of cables, connecting the various fortifications in our harbors and the districts of which they form a part, has presented many difficulties. It is difficult to prevent injury by dredges, anchors, etc., and to protect them from other interruptions. This suggests the use of a system of wireless telegraphy, which I consider, if it ever becomes practically successful, to be one of the most valuable means of communication for all military purposes that has ever been conceived. It is a system which should be taken up by men situated as you are, coming in daily contact with electrical experts and inventors. As a system of signalling it is, theoretically, as nearly perfect as one could wish. It can be used by day and night, through fogs and mists, and is independent of metallic conductors. It would be of special value in the transmission of intelligence from the scout boats to the shore, between which points, of course, metallic conductors could not be used.

In conclusion, Frederick the Great has said "that it is pardonable to be defeated, but never to be taken by surprise." In sea-coast defense a surprise might be fatal to the city we are defending. To guard against it our Signal Corps must be the eye and the ears and the tongue of our fortifications. To-night I have endeavored to impress upon you the importance of our first line of battle, the sea-coast, and the necessity for the development of a signal service that will make its defenses effective. I have pointed out a plan of giving you some idea of the problems to be solved by suggesting a coöperation of the National Guard Signal Corps with the artillery garrisons of the Regular army in the vicinity of our sea-coast cities.

I shall feel that our talk, this evening, has not been altogether in vain if my remarks and suggestions shall have lent some slight assistance to efforts, now being made, for a more cordial relation between the National Guards of the States and the Regular army. You of the Signal Corps are already professionally prepared to undertake the work, and I sincerely trust that the day is not far distant when I shall have the pleasure of again meeting you and greeting you as co-workers in the solution of a problem that should always be, to *all* of us, a pleasant because a patriotic duty.

MILITARY REWARDS IN THE UNITED STATES.

By M. H. U. S.

* **T**HE recent announcement by the President of the United States, that hereafter promotion (by selection at least) in the Army and Navy should be based entirely upon military records, and not upon political or personal influence, indicates a new departure regarding the bestowal of military rewards in this country.

The late Spanish-American campaign and the prolonged warfare in South Africa and the Philippines have afforded the governments of the two great English-speaking nations many opportunities of that character. In a sense, honors have been "easy"; although often fairly won, yet complaint is heard, on both sides of the Atlantic, that the recognition of service in war lacks system and has often "depended, not on the actual severity of the work done in any campaign, but rather on the political and national importance of the result of the campaign." *

The appointment of a board of officers—of recognized impartiality and experience—to take final action upon the large number of recommendations for brevets and medals of honor, which have been made to our War Department, is certainly an improvement in "the system." It remains to be seen whether this step will be followed by other reforms affecting the proper recognition of gallant or meritorious conduct in the Army and Navy.

To this end it may not be untimely to glance briefly at some methods of reward for military merit.

"Superior merit and capacity were rewarded in various ways by the Romans. A victorious general was, if the people considered him worthy of it, honored with a triumph. The general entered Rome in a magnificent chariot followed by his soldiers and by the spoils and prisoners taken from the enemy; the

* Colonel Hale in the "Nineteenth Century."

more splendid the victory the more gorgeous the pageant. When a Roman saved the life of a fellow citizen he was crowned with a chaplet of oak ; this distinction was by no means trifling. It gave him State privileges and allowed him to confer them upon his father and grandfather by his father's side ; an encouragement to merit which cost the country nothing, and was productive of many great effects. The Greeks had no triumphs, but citizens, who saved or protected the lives of others, were honored by a crown and a complete suit of armor. Among them want of military virtue was rather punished than valor rewarded ; this was particularly so among the Spartans ; it was considered that the most determined bravery was such a matter of course, that any, the slightest deviation from that excellence was worthy of degradation." *

In modern times the Roman rather than the Grecian custom has prevailed, and crosses, medals of honor and increased rank have been freely bestowed upon those who have distinguished themselves in the face of the enemy, while victorious commanders have received substantial rewards of grants of land and money and titles of nobility.

THE HONORARY BADGE OF MILITARY MERIT.

General Washington understood the value of personal decoration for gallantry or meritorious conduct, and on August 7, 1782, issued the following order from his headquarters at Newburg.

"Honorary badges are to be conferred on the veteran non-commissioned officers and soldiers of the army who have served more than three years with bravery, fidelity and good conduct ; for this purpose a *narrow piece of white cloth of an angular form* is to be fixed to the left arm on the uniform coats ; non-commissioned officers and soldiers who have served with equal reputation more than six years, are to be distinguished by two pieces of cloth set in, parallel to each other, in a similar form. Should any who are not entitled to these honors have the insolence to assume the badges of them, they shall be severely punished. On the other hand, it is expected that gallant men who are thus designated will, on all occasions, be treated with particular confidence and consideration.

"The General, ever desirous to cherish a virtuous ambition in his soldiers, as well as to foster and encourage every species of military merit, directs that whenever any singularly meritorious action is performed, the author of it shall be permitted to wear on his facings, over

* "The Causes which have led to the Pre-eminence of Nations."—Ross of Bladensburg in *Journal R. U. S. Inst.*

his left breast, the figure of a *heart in purple cloth or silk*, edged with narrow lace or binding. Not only instances of unusual gallantry, but also of extraordinary fidelity and essential service in any way shall meet with a due reward.

"Before this favor can be conferred on any man, the particular fact or facts on which it is to be grounded must be set forth to the commander-in-chief, accompanied with certificates from the commanding officers of the regiment and brigade to which the candidate for reward belonged, or other incontestable proofs, and, upon granting it, the name and regiment of the person with the action so certified are to be enrolled in the Book of Merit, which will be kept at the orderly office.

Men who have merited this last distinction to be suffered to pass all guards and sentinels which officers are permitted to do. *The road to glory in a patriot army and a free country is thus opened to all.*

"This order is also to have retrospect to the earliest days of the war, and to be considered as a permanent one.

* * * * *

"Sunday, August 11, 1782.

"In order to prevent misapplication of the honorary badges of distinction to be conferred on the non-commissioned officers and soldiers, in consequence of long and faithful service, through any mistake or misapprehension of the orders of the 7th inst., the General thinks proper to inform the Army that they are only attainable by an uninterrupted series of faithful and honorable services.

"A soldier who has once retired from the field of glory forfeits all pretensions to precedence from former services; and a man who has deservedly met an ignominious punishment or degradation cannot be admitted a candidate for any honorary distinction unless he shall have wiped away the stain his reputation has suffered by some very brilliant achievement, or by serving with reputation, after his disgrace, the number of years which entitles other men to that indulgence."

On the 9th of September, 1782, a Board was appointed to examine and report upon the claims of the candidates for the Badge. In the following April the Board reported that (among others) "Sergeant Elijah Churchill, 2d Regiment Light Dragoons, in the several enterprises against Fort St. George and Fort Stongo, on Long Island, in their opinion acted a very conspicuous and singularly meritorious part; that, at the head of each body of attack, he not only acquitted himself with great gallantry, firmness and address; but that the surprise in one instance and the success of the attack in the other, proceeded in a considerable degree from his conduct and management."

The certificate accompanying the "Badge of Military Merit" awarded to Sergeant Churchill authorized the wearer "*to pass and repass all guards and military posts as fully and amply as any commissioned officer whatever,*" thereby enhancing the value of the decoration and stimulating true soldierly pride.

BREVETS.*

The first brevet given by Congress (July 20, 1776) was that of Lieutenant-Colonel to M. de Franchessin, "a Knight of the Order of St. Louis, an experienced officer in the French service, and who is well recommended in letters from abroad."

The earliest brevet issued for special gallantry was (October 27, 1778) of Lieutenant-Colonel to M. Tousard (afterward Lieutenant-Colonel, Commandant of Artillery and Engineers), in a resolution of Congress which read, "That the gallantry of Monsieur Tousard in the late action on Rhode Island is deserving of the highest applause."

The first reward of this kind to Americans was the brevet of captain to Lieutenant Henry Knox (afterward Major-General and Secretary of War), with the assurance "That Congress warmly approve and applaud the cool, determined spirit with which (he) led on the forlorn hope at Stony Point, braving danger and death in the cause of his country."

At the beginning of our second war with Great Britain there was not a single officer living who held a brevet in our Army, and Congress passed a law (July 6, 1812) that "The President is hereby authorized to confer brevet rank upon such officers of the Army as shall distinguish themselves by gallant actions or meritorious conduct."

During the war with Mexico, the following law was made by Congress, March 3, 1847:

"When any non-commissioned officer shall distinguish or may have distinguished himself in the Service, the President of the United States shall be and is hereby authorized, on the recommendation of the commanding officer of the regiment to which said non-commissioned officer belongs, to attach him by brevet of the lowest grade to any corps of the Army. *Provided*, that there shall not be more than one attached to any one company at the same time."

During the late war (March 3, 1863), the President was further authorized to brevet "commissioned officers of the vol-

* *Brevet* is derived from the Latin *breve*, *brevia*, words still preserved in English law, meaning a brief; a parchment containing a notification. A brevet under the existing laws, affecting the regular military service of the United States, may be defined as a commission conferring upon an officer a grade *in the Army* additional to and higher than that which, at the time it is bestowed, he holds by virtue of his commission in a particular corps of the legally established military organization. "History and Legal Effects of Brevets," by Gen. J. B. Fry, U. S. A. New York: D. Van Nostrand, 1877.

unteer and other forces in the United States service for gallant actions."

In 1869 it was enacted that from and after the passage of this Act, commissions by brevet shall only be conferred in time of war, and for distinguished conduct and public service in the presence of the enemy. This legislation was made necessary by the lavish and indiscriminate use made of the brevet as a reward for other service than gallant or highly meritorious conduct.

In an endeavor to correct certain incongruities of service resulting from failure on the part of the military authorities to provide a suitable insignia of brevet other than the full uniform of the grade a law was passed in 1870 which practically destroyed the value of all brevets already conferred, so far at least as official recognition was concerned.

In 1890 the following Memorial, signed by some of the most distinguished officers of the Army was, with the approval of the War Department, duly submitted. In the press of other business it failed to pass both houses.

THE SENATE AND HOUSE OF REPRESENTATIVES IN CONGRESS
ASSEMBLED.

The undersigned officers of the Army respectfully urge the repeal of section 16, Ch. 294, Laws 1870, which reads: "*Hereafter no officer shall be entitled to wear, while on duty, any uniform other than that of his actual rank on account of having been brevetted; nor shall he be addressed in orders or official communications by any other title than that of his official rank.*"

In support of our petition we ask attention to the following statement:

From the earliest times special rewards for notably gallant deeds and distinguished conduct have been essential parts of military systems. In our army, the principal reward for such services has been the Brevet, which has its legal foundation in the Act of July 6, 1812, Sec. 4, authorizing that brevet rank be conferred "on such officers of the Army as shall distinguish themselves by gallant action or meritorious conduct."

This Act, Attorney-General Wirt said, "was passed *flagrante bello*," and was "manifestly intended as a stimulus to enterprise in a struggle which it was foreseen would require all our strength."

The "*stimulus to enterprise*" thus formally offered by the government, but which had long been in actual use, carried by law, rights to command, rights to precedence, rights to pay, rights to uniform and rights to title. All of these rights, except a restricted and valueless right to command, have been swept away by law, and the "*stimulus to enterprise*" has practically ceased to exist.

Our petition is that the *honorary features* of the brevet be restored by a repeal of the laws which forbid officers of the army to wear the uni-

form and bear the title of their brevets, and that the subject of uniform and title be left to the President in these cases as it is in all others.

At the commencement of the late war, there were 216 officers holding brevets superior to their corps or regimental grades. Twenty-five years after that war, notwithstanding a generous distribution of brevets, there are barely 275 officers of the Army having brevet commissions higher than their lineal grades.* Of these, about 175 have passed to the retired list, and are deprived, equally with those on the active list, from privileges of uniform † and title accorded by the Act of July 28th, 1866, to officers who have passed into civil life. That Act is as follows:

"All officers who have served during the Rebellion as volunteers in the armies of the United States, and who have been and may hereafter be honorably mustered out of the volunteer service, shall be entitled to bear the official title and upon occasions of ceremony to wear the uniform of the highest grade they have held by brevet or other commissions in the volunteer service. In case of officers of the Regular army the volunteer rank shall be entered upon the official register."

This anomaly, that an officer must go out of the military service in order to acquire a right to the uniform and title of his highest military grade, arose probably from the belief that it was necessary to prevent confusion in the active Regular army. To deny officers who remained in the army full recognition of the honors the government admitted they had fairly won, and which it formally conferred upon them, was a great hardship. The sacrifice may have been necessary in 1870, but we respectfully submit that the conditions have changed. There is not an officer left upon the active list, who was brevetted for service in the Mexican war, a majority of those brevetted for the Civil War have died, or been retired, and nearly all of those still in active service holding brevets for the Civil War are near the age for retirement.

Thus the subject presents itself now, first, as a system for the stimulus of enterprise in wars to come, and second, as a proper and merited expression of honors won in wars that are past; and there is no government money involved.

To bestow honor for martial deeds and then forbid the use of the title and insignia which went with the honor when it was accepted, is mortifying and discouraging.

The recent legislation which authorizes the wearing of badges of voluntary military associations, may, we think, well be extended to the repeal of all laws or parts of laws restraining the President from regulating, in the Army, the exhibition of titles and insignia, for brevets conferred by the President and Senate in accordance with law.

Among those who signed this "Memorial"—"veterans" in the true sense of the term—were a Provost Marshal General of the Armies of the United States, a Corps Commander of the Army of the Tennessee and a Chief of Artillery of the Army of the Potomac. These men, who had served as Major Generals for several years, were in the reorganization of the army at the close of the Civil War returned to duty as field officers, with brevets

* In Nov., 1901, there are only 125 officers of this class (but 1 on active list) borne on the Army Register.

† The Army Regulations of 1901 permit Retired officers, who have been brevetted, to wear the uniform of their highest brevet rank.

of the highest grades they had filled with distinction in the field. Within four years after, they were deprived of the cheap official recognition which had been the law and regulation since the establishment of our Government and passed the remainder of their lives under a sense of undeserved humiliation. The military reward bestowed by a grateful Republic had been turned into a punishment.

CONGRESSIONAL MEDALS.

Congress had not yet proclaimed the independence of the Thirteen United Colonies, when, on March 25, 1776, it was ordered that a gold medal should be struck and presented "To His Excellency, General Washington, for his wise and spirited conduct in the siege and acquisition of Boston."*

Instructions were sent to Benjamin Franklin, then in Paris, to employ the best artists in France for the purpose, and the medals struck by order of Congress for certain heroes of the Revolution were perfect specimens of the medallic art.

Franklin's ideas upon the subject are expressed in the following extract from one of his letters to the Secretary of State, dated Passy, May 10, 1785:

"The ancients, when they ordained a medal to record the memory of any laudable action, and to do honor to the performer of that action, struck a vast number and used them as money. By this means the honor was extended through their own and neighboring nations: every man who received or paid a piece of money was reminded of the virtuous action, the person who performed it and the reward attending it; and the number gave such security to this kind of monument against perishing and being forgotten, that some of each of them exist to this day, though more than two thousand years old, and being now copied in books by the art of engraving and painting are not only exceedingly multiplied, but likely to remain some thousands of years longer. The man who is honored only by a single medal is obliged to show it to enjoy the honor which can be done only to a few, and often awkwardly. I therefore wish the medals of Congress were ordered to be money."

Although the first medal *voted* was a gold medal to Washington, the first one *struck* was the silver medal to Lieutenant-Colonel Fleury, one of the young officers of the French Army, who obtained leave to enter our service in 1777. His devotion to our cause was so thorough, and his exploits so gallant that they merit brief notice here.

* Loubat's "Medallic History United States."

Upon arriving in America this officer, who was an engineer, with other of his countrymen, applied for commissions. General Washington, however, declined to grant their requests, as many adventurers had already entered the Service. Failing to obtain an appointment as an officer, Fleury entered the ranks and soon fought his way to promotion. He was wounded and had a horse killed under him at Fort Mifflin, for which Congress voted him another horse, promoted him a lieutenant-colonel (Nov. 26, 1777), "in consideration of the disinterested gallantry he had manifested in the service of the United States."

In the assault upon Stony Point (July 15, 1779), he commanded one of the storming parties, was the first to enter the main work, and struck the British flag with his own hands. For this achievement Congress voted him a silver medal and subsequently a vote of thanks for "his zeal, activity, military genius and gallantry." He served under Rochambeau 1780-82.

After the close of the Revolution, Colonel Fleury went to India, and in 1790 returned to France. He was put on the pension list there, but continued in active service with the rank of *Marechal-de-camp* until 1792, when, during the retreat from Mons, his horse fell and he was ridden over by part of a regiment of the enemy's cavalry and was permanently disabled. The same year, at the age of forty-three, he retired from the Army.

Less than one hundred medals have been struck since the foundation of the Government of the United States. But three of these commemorate episodes of the War of the Rebellion: one to General Grant for his victories, one to Cornelius Vanderbilt for patriotic generosity, and, at the close of the War, one to George Foster Robinson for saving the life of Mr. Seward, Secretary of State.

THE MEDAL OF HONOR.

The Medal of Honor for the army was first established as a reward for military service by a law approved July 12, 1862, as follows: *

* In the second year of the Civil War Secretary Stanton caused the following announcement to be made:

"Alacrity, daring, courageous spirit and patriotic zeal on all occasions and under every circumstance is expected from the army of the United States * * *

"*Resolved* by the Senate and House of Representatives of the United States of America in Congress assembled, that the President of the United States be and he is hereby authorized to cause 2000 'medals of honor' to be prepared, with suitable emblematical devices, and to direct that the same be presented in the name of Congress to such non-commissioned officers and privates as shall most distinguish themselves by their gallantry in action and their soldier-like qualities during the present insurrection."

This was followed by an act (March 3, 1863) to the "effect that the President cause to be struck from the dies recently prepared at the United States Mint for that purpose 'Medals of Honor' additional to those authorized by the act of July 12, 1862, and present the same to such officers, non-commissioned officers and privates as have most distinguished or may hereafter most distinguish themselves in action; and the sum of \$20,000 is hereby appropriated out of any money in the Treasury not otherwise appropriated, to defray the expenses of the same."

The medal is described as "a five-pointed star, tipped with trefoil, each point containing a crown of laurel and oak; in the middle, within a circle of thirty-four stars, America, personified as Minerva, stands with her left hand resting on the fasces, while with her right, in which she holds a shield emblazoned with the American arms, she repulses Discord, represented by two snakes in each hand; the whole suspended by a trophy of two crossed cannons, balls and a sword surmounted by the American eagle, which is united by a ribbon of thirteen stripes, palewise, gules and argent and a chief azure, to a clasp composed of two cornucopias and the American arms."

Gen. E. D. Townsend (late Adjutant-General of the Army) thus describes the circumstances leading to the creation of this military reward:*

"As soon as news of the Civil War in the United States became known in Europe, many persons who had been officers in foreign armies, came to offer their services to the Government. It frequently happened that these gentlemen brought letters of introduction and testimonials of their military career. Sometimes they came accredited to our Department of State. They usually paid their respects to General Scott, and not unfrequently, on such an occasion, wore their uniform, with all

and the people of the United States will rejoice to honor every soldier and officer who proves his courage by charging with the bayonet and storming entrenchments, or in the blaze of the enemy's fire."

* "Anecdotes of the Civil War," by Gen. E. D. Townsend. New York: D. Appleton & Co.

their decorations—medals or orders. There were many men in our volunteer service who had served abroad, and it was quite the habit among them to display on their uniforms such marks of distinction, if they possessed them. It is no wonder if they were objects of envy to many of our young aspirants for military glory.

"The experience of the Mexican War, when the honor of a brevet was so often persistently sought for through political influence, sometimes without any special military merit to sustain it, early suggested to me the probability that the same evil, in magnified form, would arise during the Civil War. It was very desirable, therefore, if possible, to prevent what afterward actually happened, the destruction of the practical benefit arising from the brevet system. Instead of tardy and sometimes indiscriminate recommendations for brevets, why should not our generals, when in command of armies in time of war, be clothed with the power of rewarding distinguished acts of bravery, *on the instant*, by issuing orders conferring a medal for them, such orders to be as soon as possible confirmed and executed by the War Department? Mistakes would rarely, if ever, be made; and the excellent effect of a prompt recognition of gallantry in battle is no new thing in history.

"Impressed with these ideas, I, early in 1861, urged their adoption upon General Scott, and upon the chairman of the Senate Military Committee, the Secretary of War, and others in influence. They objected that it was contrary to the spirit of our institutions to wear decorations, and therefore the measure would not be popular. I instanced the pride which children feel in wearing medals won at schools, and the pains taken by parents to foster it; and suggested that, if those who won medals did not choose to wear them, they would none the less value them, and so would their descendants after them. Nothing was done in that direction, however, until the 12th of July, 1862, when Congress passed a resolution to award medals of honor to enlisted men, which, by the act of March 3, 1863, was extended to officers also. These medals, although intrinsically of but little value, have been eagerly sought for and highly prized. The main objection to them is the mode of conferring, under which years have sometimes elapsed before sufficiently

reliable testimony could be obtained that the claimant was justly entitled to one, according to the terms of the law."

ARMY CORPS BADGES.

As a means of promoting *esprit de corps* the badges originated and authorized by army commanders in the Civil War, and since legalized by Congress, have come to be regarded as a proud mark of distinction and memorial of service in the great conflict 1861-65.

To Major-General Joseph Hooker probably belongs the credit of first having issued orders for the adoption of corps badges, to be worn by officers and enlisted men of all the regiments of various corps through the entire Army of the Potomac. Just before the Chancellorsville campaign, on the 21st of March, 1863, he issued a circular prescribing the device for a badge for each corps, "for the purpose of ready recognition of corps and divisions of this army, and to prevent injustice by reports of straggling and misconduct, through mistake as to their organizations." They were to be "fastened on the centre of the top of the cap." The devices seem to have been arbitrarily chosen, without particular significance.

The *divisions* of each corps were indicated by one of the colors, red, white, blue; and green and orange, if there were more than three divisions, upon some part of the badges. They were either suspended by the tri-colored ribbon, or fastened with a pin. As there were usually three divisions in a corps, the national colors were the ones sure to be represented. For the headquarters, some slight modifications were made in the form worn by the divisions. When several army corps were consolidated into an "army," the badge of that army headquarters consisted of a combination, in one, of all of those of the corps.

Corps badges have now a formal recognition in the Revised Statutes of the United States :

"Section 1227. All persons who have served as officers, non-commissioned officers, privates, or other enlisted men, in the Regular Army, Volunteer, or Militia forces of the United States, during the War of the Rebellion, and have been honorably discharged from the Service, or still remain in the same, shall be entitled to wear, on occasions of ceremony, the distinctive army badge ordered for or adopted by the army corps and division, respectively, in which they served."

From General Jefferson C. Davis this legend of the Acorn

Badge was received: After the battle of Chickamauga, Rosecrans' army made a stand at and around Chattanooga. This army, owing to exceedingly muddy roads, and the cutting of its lines of communication by the Confederates, had great difficulty in getting supplies. The Fourteenth Corps was encamped near a wood of oak trees, which were at that time covered with acorns. As the rations fell short, many of the men gathered the acorns and ate them roasted, till at length it was observed that they had become quite an important part of the ration, and the men of the corps jestingly called themselves "The Acorn Boys."

The device of the badge of the Fifteenth Corps was suggested by the following incident: The Eleventh and Twelfth Corps were transferred from the Army of the Potomac to the Department of the Cumberland. They were better dressed than the other troops of that department, and a little rivalry sprang up between these Eastern boys and those who came from the West. The latter spoke of the former as "the men who wore paper shirt-collars, and crescents and stars." Before the Fifteenth Corps had any badge, an Irishman belonging to it went to the river near camp to fill his canteen. There he met a soldier of one of the newly arrived corps, whose badges were the subject of ridicule by his comrades. The latter saluted the Irishman with the query, "What corps do you belong to?" "The Fifteenth, sure." "Well, then, where is your badge?" "My badge, is it? Well (clapping his hand on his cartridge box), here's my badge! *Forty rounds!* It's the orders to always have forty rounds in our cartridge-box, and we always do."

Major-General F. P. Blair, 17th Corps, said: "The badge now worn by the corps being similar to one formerly adopted by another corps, the major-general commanding has concluded to adopt, as a distinguishing badge for the command, an *arrow*."

"In its swiftness, in its surety of striking where wanted, and its destructive powers when so intended, it is probably as emblematical of this corps as any design that could be adopted."

The 24th Corps was organized late in the war, and was principally composed of veterans who had served in other corps. Major-General John Gibbon, in his orders adopting the badge (a *heart*) says: "The symbol selected is one which testifies our

affectionate regard for all our brave comrades—alike the living and the dead, who have braved the perils of this mighty conflict,—and our devotion to the sacred cause—a cause which entitles us to the sympathy of every brave and true heart, and the support of every strong and determined hand.

“The major-general commanding the corps does not doubt that the soldiers who have given their strength and blood to the fame of their former badges will unite in rendering the present one even more renowned than those under which they have heretofore marched to battle.”

The 25th Corps was composed of colored soldiers. It was the first to occupy Richmond, Virginia, April 3, 1865. The following is Major-General Godfrey Weitzel's order :

“In view of the circumstances under which this corps was raised and filled, the peculiar claims of its individual members upon the justice and fair dealing of the prejudiced, and the regularity of the conduct of the troops which deserve those equal rights that have hitherto been denied the majority, the commanding general has been induced to adopt the *square* as the distinctive badge of the Twenty-fifth Army Corps.

“Wherever danger has been found and glory to be won, the heroes who have fought for immortality have been distinguished by some emblem to which every victory added a new lustre. They looked upon their badge with pride, for to it they had given its fame. In the homes of smiling peace it recalled the days of courageous endurance and the hours of deadly strife, and it solaced the moment of death, for it was a symbol of a life of heroism and self-denial.

“Soldiers! to you is given a chance, in this Spring campaign, of making this badge immortal. Let history record that, on the banks of the James, thirty thousand freemen not only gained their own liberty, but shattered the prejudice of the world, and gave to the land of their birth peace, union, and glory.”

CERTIFICATES OF MERIT.

During the war with Mexico a law was passed that “when any private soldier shall so distinguish himself (or may have distinguished himself in the Service) the President may (upon the recommendation of the commanding officer of the regiment)

grant him a Certificate of Merit, which shall entitle him to additional pay at the rate of two dollars per month (March 3, 1847).

HOW TO UTILIZE OUR HONORS.

It will be seen that the United States possesses a reasonable variety of military rewards but is deficient in a proper appreciation of their value and possibilities. In this respect we may profitably imitate older nations, with greater experience in things military, who look upon a decoration for valor, or a brevet, as something more than ornament, and in effect an evidence of the power of the State and an object lesson in patriotism. The Powers of Europe seek to imbue the people with a wholesome respect for those who have served their country well, as shown by the possession of war medal or cross; that is the meaning of the grand reviews, when royalty itself pins the iron or bronze token upon the breast of general and private alike, thus enhancing its value in the eyes of the world.

With us, it is the exception, rather than the rule, when the Medal of Honor is conferred with military ceremony and at a parade of troops. It is true that, within recent years, more care has been taken in awarding the medal, and as a means of preserving it from injury and loss the "bow-knot" of ribbon has been provided as a substitute to be worn when not in uniform. It may be worthy of consideration whether, as in the case of Washington's "Badge of Military Merit," the wearer of the Congressional Medal of Honor shall be "*authorized and entitled to pass and repass all guards and military posts as fully and amply as any commissioned officer whatever*"; and the medal or "bow-knot" shall be saluted by all enlisted men, recognizing it, in the manner prescribed by Army Regulations when meeting an officer.

If the rules relating to the Medal of Honor are susceptible of improvement, those surrounding the Brevet should be promptly revised. The Government is placed in the position of an "Indian giver;" issuing a commission, but withholding the rights and privileges which are set forth therein. As already stated in this paper, the possession of a brevet, under present restrictions, is a burden rather than an honor. If more brevets are to be conferred, as seems probable, it is to be hoped

that the Senate before which they will come for confirmation, having its attention called to the matter will restore the right to the *title* and to the *insignia* for all official purposes.

It is understood that the subject of creating a Reserve force for the National Defense, has been under consideration at Washington for some time. An important means to such an end, is to familiarize the people with the evidence of the rewards for gallant or meritorious service, and to impress upon the young men the full force of Washington's memorable words, "*The road to glory in a patriot army and a free country is thus open to all.*"

If, in addition to the existing military rewards, a war medal for service in a campaign, should be authorized and distributed to each soldier of any of our wars now in service, or who may show an honorable discharge, it would be a popular measure and tend to keep alive a patriotic spirit.

In closing these remarks, it may be neither irrelevant nor impertinent to note that in the recognition of military merit the principle of justice must never be lost sight of: that in avoiding the Scylla of incompetency and demerit, one is not cast upon the Charybdis of injustice and demoralization; that in rewarding one deserving or able officer, we do not at the same time, punish other meritorious public servants.

THE SERVICE MAGAZINE.

BY CAPTAIN JAMES RONAYNE, 19TH INFANTRY, U. S. A.

THE necessity for military men of keeping in touch with the newest facts and ideas connected with the organization, equipment, training and employment of troops is the reason for the existence of a service magazine which aims to give such information. Such a magazine should have in the list of its subscribers the name not only of every officer in the army, but also that of every officer in the National Guard who realizes the responsibility—and especially the latent responsibility—which his commission entails.

One of the main principles which should govern in the operation of the magazine is that it should be general in its character. The ideal officer is the all-round officer, the one who is not satisfied with being able to perform, satisfactorily, the duty imposed upon him to-day, but who looks to the morrow and prepares himself *now* for any and all duties which that day may bring. He belongs to a particular arm of the service, but he sees beyond that; he recognizes the others and, doing so, he sees their importance and the interdependence of all arms. He realizes that his arm, although capable of independent action, is primarily only a part of that great machine—the land forces of the nation, and that, consequently, it is his duty not to neglect the study of the other arms, as well as of the auxiliary forces with which the Regular establishment must be augmented when the peace of the nation is seriously threatened. In no other way can he assure himself that he will be ready to perform the parts assigned to him while the game of war is in progress.

Is it not the duty of every officer to make an honest effort in the direction of this ideal? To reach it the service magazine is indispensable. In it we should find the best thoughts of our contemporaries on military affairs, and because the betterment of the service is a duty of every officer, we should take an active part in making the magazine a success. No magazine in

this country can compare with the JOURNAL OF THE MILITARY SERVICE INSTITUTION as a service magazine ; no other has its capabilities for the improvement of the land forces of the nation. If the different arms of the service, the staff corps, the National Guard, etc., were each capable of maintaining a first-class magazine devoted exclusively to that particular division, a very energetic man may, by being a subscriber to all of them, keep in touch with modern ideas on all that pertains to the military art. Several such *class* magazines have appeared in our service, but, even if the scheme were considered desirable, our army is too small to be able to maintain a magazine for each class ; so that it remains impossible for us to become all-round officers without a magazine which is general in its character. The scheme, however, is not considered desirable because (1) it would in all probability result in a division of the brightest minds of the service into classes of specialists, each class concerned solely with its own arm or corps ; (2) the absolute interdependence of the arms make it impossible to draw valuable material conclusions as regards any branch of the service from a study only of that branch ; in other words, if a thorough knowledge of any arm is sought, we must go outside that arm and have our ideas and conclusions modified by a study of the effects of the other arms upon that particular one, and (3) united effort would be lacking in the absence of a common meeting ground of the arms.

It is believed, therefore, that the revival of the journals of particular arms, which have suspended publication, is inexpedient and would very materially affect the welfare of the service. It must not be forgotten that the Associations, from which these journals originated, were conceived by the most energetic men, if not the most capable, of the several arms, the very class of men who are needed as supporters of a service magazine. A good many of them probably were members of the M. S. I. and supporters of the JOURNAL before the plans for their "own" associations were matured ; many of them, perhaps, are yet members of the M. S. I., but, naturally, this Institution and its JOURNAL must now take second place with those gentlemen, or—no place at all. What a loss to the service in general, to themselves, to all of us.

The matter is such a serious one that we feel justified in urging upon members of the associations mentioned to consider it earnestly and without prejudice, and to determine the question as to whether or not it is for the best interests of the service to become members of the M. S. I. (if not already so), and give to its JOURNAL their vigorous support. By our united efforts we should be able to make of this publication the foremost military magazine of the day. This is considered a propitious time for such a step. Perhaps false pride, and jealousy, too, had a share in the inception of these associations, but since April, 1898, the unvarying excellence which has characterized the actions of all arms, under all sorts of conditions, has made us forget all rivalry in the pride of our being members of the service; has made of us, unconsciously, a United Service. The remembrance, too, of the last Army Reorganization Act, which has done so much for the service in general and for each of us in particular, and whose provisions were so devoid of undue partiality to any arm, will surely help to put us in the proper mood for the discussion and determination of this question.

Fort Wayne, Mich., Dec. 10, 1901.

THE CAVALRY QUESTION.

FROM a lecture delivered by "His Excellency M. Jean de Bloch,* Russian Councillor of State, before the Royal United Service Institution of Great Britain, June 24, 1901, upon the subject of "The Transvaal War : Its Lessons in regard to Militarism and Army Reorganization," is made the following extract. The distinguished lecturer's views on the Cavalry Question will doubtless amuse, if they do not convince, men versed no less in the practice than the theory of the art of war.

"Seeing to what a degree the Continental soldiers try to disfigure the facts of the South African War, and to forge arguments which have absolutely no other use than to misrepresent the facts, as, for instance, by citing German efficiency in China, and also in view of the fact that in England articles have been published by eminent soldiers and politicians declaring that the South African War teaches nothing, I hope, in view of the gravity of the subject, you will pardon me for casting a general glance at the real way in which the lessons of the South African War will apply in the case of an European struggle.

"The question of the use of cavalry for irruptions and reconnaissances rises first. Three-quarters of European cavalry forces will be on the frontiers for the purpose of making incursions into the enemy's country. Two hours after the declaration of war the cavalry will have taken the field, and, on the other hand, measures will be taken in order to prevent destruction by cavalry. But whatever be the result, there is no doubt that the hatred unchained by such incursions will have an effect upon operations, as one of the best means for the better preparing of the ground for a national war. At present we see many military authorities declaring that the sacrifices made in order to increase the number of cavalry are not well founded. The German official *Jahresbericht*, for 1900, tells us that 'The idea is gaining ground with regard to the proposed incursions of great

* "Author of "The War of the Future."

masses of cavalry into the enemy's country during the first stage of mobilization, that the gain would not be equal to the price paid. With a well-organized and active frontier guard, flying columns could succeed in drawing hostile cavalry into positions where it would be enveloped and broken up, by depriving it of rest and food, so that the cavalry thus sacrificed would be lost for subsequent operations.' The South African War confirms entirely this opinion. For reconnaissances they failed, and for charges they were found useless. Reconnaissances such as those projected by von Moltke in his plan of campaign seem absurd nowadays, when the effect of rifle fire is so great that Lord Roberts, as he lately told us, had to increase the distance between the files in infantry attack from 6 paces to 10, and then to 20.

"In regard to reconnaissance, the Transvaal War shows that the thorough reconnaissance of the enemy's position can only be the business of scouts working on foot, who will by stealthy approach obtain the information which is indispensable for the arrangement of an attack that is to have any certainty of success. For reconnaissance, cavalry has undoubtedly lost its old rôle. But attacks of cavalry in mass belong no less to the past if we may judge by South African experience. Before that war broke out calculations had been made that if a cavalry attack by 2600 horsemen was made against a battalion of infantry from a distance of 800 metres, they would be destroyed by the time they got to within 100 metres. In South Africa, the British cavalry were never able to make such attacks; and since troops on the defensive in a future war will be, as the Boers were, always entrenched, we must eliminate all cavalry charges, as far as the scheme of attack is concerned.

"Against artillery, cavalry attacks seem equally impossible. To be effective, they must be in the ancient formation, and in such formations shell fire, shrapnel, and machine guns must cause such losses that the remnant will be forced to retire, if any remain. Meetings of cavalry with cavalry will also probably take place no more. As to the use of cavalry by the defenders, it may be asked why, when having put his troops under good cover the defender is certain of victory, will he expose his cavalry in counter-attack?

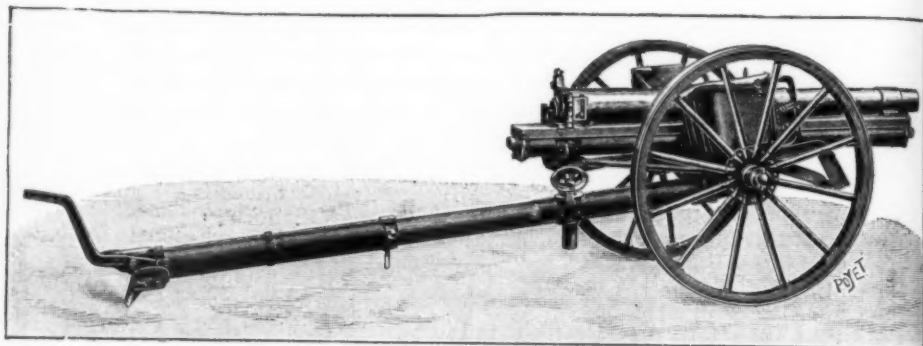
"It seems also that cavalry has lost its rôle in the pursuit of a flying enemy. In South Africa battles were practically never decisive in the ancient sense of the word, and the British cavalry, which is certainly among the best, was never able to carry out movements which would oblige the Boers to abandon their guns and surrender *en masse*. It cannot be doubted that the same phenomenon will be repeated in the future, since it arises from a permanent feature of modern battles, the great distances between the combatants. Cavalry, indeed, rendered great services in South Africa in the carrying out of rapid movements in turning the enemy's position, but the actual fighting was almost always the work of men on foot.

"And since neither reconnaissances nor cavalry attacks are feasible, and the principal use of cavalry is the making of quick marches, the long service and present methods of drill exacted from cavalry are useless, if only measures are taken to enlist for cavalry regiments men who are accustomed to horsemanship.

"From all this the conclusion must be drawn that neither the training nor education of the German or any other army can change these facts as to the new condition of cavalry in warfare."

MOUNTED MAN OF THE FUTURE.—Lord Dundonald, the well-known British cavalry general, has been giving, in an after-dinner speech, his conclusions drawn from his experiences in South Africa. He said that the ideal mounted man of the future would be one who was skilled in reconnaissance and outpost duty, could attack a position and defend a position, and was, above all, a good shot, and able to walk many miles without fatigue to ease his horse. As to the retention or not of the sabre, he thought the ordinary cutting sword should go, and some light weapon be substituted that could be utilized at the end of the rifle or for thrusting. The future was with the mounted riflemen. The day of shock action and of the sabre was over. Smokeless powder and flat trajectory and magazine fire were too much for it, to say nothing of light machine guns. A few lancer regiments might still be of use on special occasions if their horses were kept fresh, but for general use the rifleman was the man. The unfortunate part of it was that the qualifications which made soldiers of real use to the country were not those which brought down the applause of the gallery. The man who could walk twenty miles a day to save his horse and enable a general to carry out a great turning movement without killing his horses, the man of accurate shooting, the man who could find his way anywhere, and send back his information correctly and concisely was the man who was wanted. He might not look like a soldier, but he would have to be judged, not from his looks, but from what he could do, and he was the man by whom the battles of the future would be won.

Translations and Reprints.




THE EHRARDT CAMPAIGN GUN.

IT was hardly four years ago that the campaign artillery of the German army was provided with what was called an accelerated fire gun, which it is now thinking of discarding in favor of other pieces of a more modern model, that is to say, of rapid fire. It must be said also that the gun with which the French army has recently been provided leaves that of the Germans far behind it. A few figures will suffice to show the disparity that exists between the two weapons. That of the Germans is capable of firing but eight shots a minute at a maximum, while that of the French is capable of firing twenty-four in the same time. A single one of the French guns is therefore of as much avail as three of the German.

So, at the great manœuvres of the present year, the German army is going to try a new gun devised by the Ehrardt establishment, and the principle and arrangements of which appear to be close imitations of those of the piece now in use in the French army.

The following are the data that we have been able to obtain on the subject of this weapon: The Ehrardt gun is a rapid-fire one, of a calibre of 3 inches. With its carriage, it weighs 1980 pounds, and, with the fore carriage, 3520. Such extreme lightness, which is indispensable for a campaign piece, is obtained through the use of steel tubes for the pole of the carriage, the fellys and the spokes, and just the number of rivets necessary.



The gun is of Ehrardt steel, a metal that has the property of presenting a great resistance. The closing of the breech, for which the house has no preference, may be done by screw, wedge or eccentric of the Nordenfeldt system. We are credibly informed, however, that the German artillery has given preference to the wedge, because of the experience that its gunners have already had with this system. As in all rapid-fire guns, the opening and closing of the breech are effected in a single motion. The cocking of the piece constitutes one motion, as does that of the firing, which is effected by means of a lanyard. The gun is capable of imparting to a 143-pound projectile an initial velocity of 1640 feet. It seems that this is the limit that all campaign guns have reached, and it is to be remarked that such velocity is just the same as that formerly attained by smooth-bore guns. It must be observed, however, that the old round balls were relatively lighter than the cylindro-ogival projectiles of the present time.

The carriage consists of an upper part called a cradle, which is formed of a U-shaped seamless tube, and in the interior of which is situated the brake, and of two carriages supporting the barrel and capable of sliding upon the cradle. The latter is connected with the carriage, properly so called, through a pivot, so that it can take on a lateral motion permitting of the rectification of the direct fire without its being necessary to displace the carriage.

The piston rod of the hydraulic brake is screwed to the front of the cradle, and the anterior extremity of its cylinder is connected with the fore carriage; so that, when the gun is fired, the piston rod remains immovable, while the cylinder recoils with the piece. In this motion, the cylinder compresses recuperating springs which, when the recoil is at an end, bring the gun back to a firing position.

The carriage includes a telescopic pole, so called because it can be lengthened or shortened at will. En route, a minimum length is given it, but for firing it is pulled out to its full extent. Its extremity, which is provided with a "spade," or shoe, is fixed in the ground, and in this way the carriage is made exceedingly stable.

It may be seen from what we have said that the pointing has scarcely any chance of being modified. The pointer confines himself to effecting the few slight variations necessary by means of a hand wheel placed within his reach. Upon the whole, the quickness of firing depends only upon the time necessary for the piece to recoil and return to battery, since, with skillful gunners, it is easy to charge the gun almost completely while it is in motion. It is possible to fire from 15 to 20 shots a minute. In front of the weapon may be fixed a steel shield for protecting the gun squad from infantry balls.

The gun is loaded with a metal cartridge containing the powder and supporting the projectile. The cases are of steel or brass. The powder, which has nitro-glycerine for a base, is smokeless.

The projectiles are of three kinds: (1) A ball or shrapnel shell of

iron plate with a rear charge and an extra light fuse of aluminium, and containing 300 balls, each weighing 165 grains. When the fuse communicates fire to the internal charge, the latter simply drives the ball forward without rending the jacket. The result for the balls is an increase of velocity of about 165 feet. The maximum duration of the fuse is 21 seconds, corresponding to a range of 19,680 feet for an initial velocity of 1640.

(2) A thick-walled, high explosive shell containing a powerful explosive charge analogous to French melinite. This shell, which acts only through its fragments, is designed to be fired solely at wide angles in order to reach an enemy behind his intrenchments.

(3) A torpedo shell, which is elongated and has thin walls, so that it can contain as heavy a charge as possible of a powerful explosive. It is employed for destroying intrenchments and all objects that offer a resistance.—For the above particulars we are indebted to *La Nature*, and for the use of the plate to the *Scientific American*.

SOLDIERS AS SAMARITANS.—In a review of the article under this head by Capt. Wells of the Medical Dept., published in the November issue of the JOURNAL MILITARY SERVICE INSTITUTION, our contemporary, the *Army and Navy Journal*, says :

"To the unthinking who had come to look upon the army as a mere fighting machine, a sort of necessary evil, our military experience within the last three years has brought a flood of light and instruction. Old prejudices against the services have been conquered. Old delusions have been dispelled. Old misrepresentations have been refuted, and the people realize now that our military organization, in addition to its invincible force as a national defense in time of war, also exercises functions of inestimable value to the common welfare in time of peace. In the last analysis, the army is in fact the most powerful peace organization at the command of the Government. It stands for law and order. It is the supreme guardian of right and justice, and by embodying in its structure and conduct the highest ideals of obedience to constituted authority, it sets an example of loyalty and patriotism which is an un-failing force in behalf of tranquility and progress.

"Brilliant and honorable as have been the achievements of the army in the grim tasks of war since the outbreak of hostilities with Spain, there are other counts in the record which are no less creditable to the service. The conditions attending our military operations at home and abroad have been such as to impose enormous civil tasks upon our army officers, tasks requiring constructive genius and executive ability of the highest order. They have been called to subdue rebellious races, next to pacify them, and then to educate them in the difficult art of self-government. The vigor, tact and success with which this delicate undertaking has been carried forward distinguish the army officer as a teacher as well as a soldier, a conciliator as well as a conqueror."



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VON LÖBELL'S ANNUAL REPORTS ON THE CHANGES AND
PROGRESS IN MILITARY MATTERS IN 1900.

PRÉCIS BY LIEUT.-COL. E. GUNTER, P.S.C. (LATE EAST LANCASHIRE REGT.)

(From the *Journal Royal U. S. Institution*)

PREFACE.

THE XXVII. Volume of this important military publication for 1900, here reviewed, contains 630 pages, the increase being probably due to the greater length of the historical section, which not only deals with the war in South Africa, and the rising in China against the European Allied Powers, but includes an account of the Turko-Grecian campaign of 1897. Moreover, as technical military appliances increase with the progress of discovery and invention, so must that portion of the work dealing with these also expand.

The Editor says in his preface that a desire has been expressed in some quarters to restrict Part I., which gives tables and reports of the chief European Armies, to noting the changes which have taken place in these, instead of reproducing year by year their whole organisation in tabular form, though this idea does not, it appears, meet with universal approval. The space in the JOURNAL being, however, limited, it is thought best to reduce this portion, briefly noting any important changes in the different Armies, arranged alphabetically as heretofore, so as to allow the remarks on tactical and technical progress more room.*

* * *

PART II.

(I) INFANTRY AND COMBINED TACTICS, 1900.

Tactics of the South African War.—The campaign of the British in South Africa is of predominant interest. New weapons and new appliances of war were, however, brought into use in this campaign under such peculiar circumstances that it is only with extreme caution that the value for European warfare of the tactical experience gained, which is here epitomised, can be estimated. The Boers proved themselves a formidable body of troops, admirably mounted for long-lasting effort, but for fighting on foot only. Their performances as crack shots and their skill in the use of ground adapted them especially for defensive fighting. At the same time the engagements in South Africa prove that mere defensive fire can never bring about great successes, and that Militia forces are incapable of carrying out thoroughly the tactical offensive.

Their great mobility and extraordinary shooting powers enabled the Boers to occupy on a wide front extensive positions and to deceive the

* Part I is omitted from this reprint.—(Ed. M. S. I.)

British as to their strength. It is only by this that we can account for the advantages gained by the Boers by their occupation of advanced positions. Their employment of artillery was undoubtedly correct. Numerically inferior, they avoided the artillery duel and reserved their fire for the attacking infantry.

The fighting method of the British in the early part of the campaign took no account of the possible use by their opponents of long-range rifle fire or of the exceptional character of the ground—open country free from cover and an atmosphere so clear that it led to a constant underestimation of the distances. Yet, with all these advantages to the defence, the loss of the attackers was small: at Magersfontein, 9 per cent.; at Colenso, $5\frac{1}{2}$ per cent. This confirms the theory that, with improved weapons, battles become less bloody. At Stormberg there were $3\frac{1}{2}$ per cent. killed and wounded, but over 25 per cent. prisoners. This is to be accounted for, not by the organisation of a mercenary Army, otherwise it would have been so in former wars waged by British troops, but rather by the exhaustion of the men in the weary long-lasting actions, by the terrible heat, and by the want of water.

The intention to maintain close order as long as possible, and to get as near to the enemy as possible before opening fire, had to be renounced immediately after the first few engagements. The regulations of the Drill-book had to be thrown overboard, and each leader tried to improvise an attack of his own. This led to absence of all system. Even on the line of march the normal formations were given up and troops advanced on a broad front covered by skirmishers.* In the attack thin lines of skirmishers on widely extended fronts were opposed to the broad fronts of the Boers, and all deep formations were dispensed with. This had no evil consequences, for the Boers kept no Reserves in hand and showed themselves very sensitive of any movements of mounted troops threatening their flanks.

In the later stages of the war we see the British infantry under Lord Roberts carrying on a demonstrative frontal attack at long range to give time for the turning movements by cavalry, mounted infantry, horse artillery, and machine guns to take effect. The appearance of these outflanking troops was always the signal for the retirement of the Boers. But the success of these tactics was entirely due to the inactivity of the Boers, who confined themselves to passive defence, and they led to no decisive results, as the Boers always withdrew in good time.

Night Attacks.—These, says the author, are unavoidable, and are applicable at all times either to withdraw from a critical position, or to effect a surprise, to seize a small post (as at Spion Kop), or to pass over a fire-swept zone, that by day would be impassable without terrible loss, in order to gain positions nearer the enemy, whence fire could be resumed

* The writer has apparently overlooked Secs. 47 and 133 of "Infantry Drill." Had the spirit of its provisions been generally complied with by leaders, not so much blame would have been incurred.—TRANSLATOR.

at early dawn on the enemy's positions (as at Belmont). The conditions necessary to success are:—1. Thorough Reconnaissance. 2. Early adoption of the intended attack formation in order not to be surprised by hostile fire while deploying. 3. Last, not least, instilling into the minds of all engaged that directly the enemy begins to shoot there is nothing for it but to rush him.

He says that at Stormberg the sudden opening of fire by 1,500 Boers completely paralysed the attackers, that 633 unwounded British were made prisoners,* though the proportion of killed and wounded was not great.

At Magersfontein the attacking British had no knowledge of the enemy's real positions, and let their heavy columns approach within 400 paces of these before deploying.

All the experience gained points to the impossibility of night attacks on a large scale.

The want of proper *intrenching tools*, taken from the men to lighten their load, was often felt. Portable shields are said to have been made use of.†

Bicycles were not used by the British, but were employed by the Boers for messengers.

Machine Guns have proved useful. The *Quick-firing guns* of small calibre, christened Pom-poms, do not appear to have answered, for they were invented for use against boats from men-of-war, and not against moving men. The British system of *Flag and Lamp Signalling* answered excellently, though certainly the conditions were favourable.‡

The necessity for mounted scouts accompanying Infantry in action strongly asserted itself. Infantry patrols were superfluous when good field glasses were at hand.§ Though the cavalry were not conspicuous in their dust-coloured khaki uniform, yet the open ground, smokeless powder, and the good shooting || of their opponents made their scouting a very difficult task. The bad condition of the horses sent at once up country after a long voyage, and unaccustomed to the rough veldt fare, and want of water, increased these difficulties. The 5th Lancers, who were shut up in Ladysmith, were however acclimatised.

The *British Artillery* suffered from the same disadvantages as regards horses. It was also outranged by the well-concealed and well-served Boer guns. In the early part of the campaign there were no Howitzers. The shrapnel of their field guns was useless against the Boers well shel-

* It was the utter exhaustion of the men after a long journey and a fatiguing night march, they having been 16 hours under arms.—TRANSLATOR.

† I can nowhere find confirmation of this.—TRANSLATOR.

‡ The writer probably means to include the heliograph, though he does not specify this.—TRANSLATOR.

§ Field glasses will not discover hidden men.—TRANSLATOR.

|| The accuracy of the Boer shooting is much disputed by some officers who were much engaged.—TRANSLATOR.

tered in trenches, because the British Infantry kept back and did not compel the Boer Infantry to take up firing positions.

The most important lessons to be learnt from this campaign as regards the Infantry attack, are that frontal and flank attacks must be well combined and simultaneous, that all piece-meal attacks must be avoided, and that Infantry and Artillery must work *simultaneously* in mutual support. It is only by Infantry advancing at once to effective range that the defender can be compelled to take post for firing.

(2) QUESTIONS OF GENERAL INTEREST.

As a result of the experience gained in the South African War, it is recommended that when within effective infantry range, gradual creeping forward should take the place of the forward rush. The half-battalion of the Cornwalls crept forward in this way through the extended lines of the Shropshires and Canadians until within 700 yards of the enemy at Paardeberg, and from thence until within about 80 yards. Similarly at Spion Kop 550 Boers are said to have crept forward gradually (only 320 yards in an hour) with a loss of 35 men, and, supported by their Artillery, to have compelled 2,000 British to retire. No exact confirmation of this is yet to hand. A soldier skilfully creeping forward in this way offers but a small mark; but this method is most exhausting, and hands and knees become painfully swollen in the effort, so that good shooting is impossible. It moreover lengthens the time of the advance, and the direction is difficult, so that it is only rarely applicable. Troops creeping forward in this way become cramped, and are difficult to rouse to the assault. The rapid advance by rushes is easier supervised by the officers. It is a matter of experience.

INDIVIDUAL STATES.

Austria-Hungary.—A new Infantry Drill is pending, founded on the rifle experimental trials at the School of Musketry in Brück-on-the-Leitha from 1896 to 1899. In 1900 only provisional lithographed copies were used, and are published.

As the result of these trials the following principles are given:

1. At medium and short distances volley firing is inferior to the individual fire of skirmishers.
2. The individual fire of a section (Zug) in extended order is more effective than the volley firing of the same section at close order at medium distances.
3. Even at long range well-trained and practised troops will obtain better results from individual firing than from volley firing.
4. From experiments against a half-battery at from 1,600 to 2,100 paces, it was found that the individual fire of a section extended was as effective as the volley firing of a whole company (3 sections or Züge) in close order.
5. Firing at Artillery in action with Infantry four-deep can be employed with effect.
6. Open file formations must be adopted by the troops intended to carry the attack forward, and, within the zone of effective Artillery and long Infantry fire, sections or half-companies

in line or open order on the same alignment will be suitable formations.

It is to be remarked that in the Austrian Army volley firing by small sub-units prevails. The recent experiments have borne out the views in Germany as to the advantage of individual over volley firing.

Imperial Manœuvres were held in Galicia, north of the East Baskaden Mountains (Carpathians). The 1st Army, under command of General Baron von Waldstätten, was composed of the I. and VI. Army Corps (each of 2 Infantry and 1 Landwehr Divisions) and of the 7th Cavalry Division. The 2nd Army of the X. and XI. Army Corps and of the 6th Cavalry Division and the 18th Cavalry Brigade under command of General Galgetzy. Each Army had a balloon detachment with 2 spherical war balloons. The Reserves were called in to bring the units up to considerable strength. The supply arrangements were as in war. For example, every man carried 2 reserve rations and a small tin of preserved meat, each horse 2 reserve forage rations. Each Army head-quarters had at its disposal a four-seated motor car and a lighter two-seated one. Each Corps had also a light motor wagon and (excepting the X.) a heavy traction motor.

The opposing Cavalry Divisions were at the commencement of the manœuvres 19 miles apart, and the distance between the head-quarters of each Army was about 35 miles. The frontage occupied by the 1st Army was 50 miles, that of the 2nd Army 38. These manœuvres, though showing the excellent training of the troops* and the skill of their commanders, call for no special remark. The railway organisation was good and this service is worth notice. In 3 days 82,212 officers and men, 6,223 horses, and 320 carriages were entrained from 6 different stations, and were carried home along 3 single-lined railways. Combined manœuvres with the Lower Danube Flotilla were carried out on 28th and 29th August, 1900, and are worth noticing. The Southern Army tried to force the passage of the river defended by the Northern Army. The Southern Force had 5 Battalions, 1 Squadron, 1 Field Battery, 1 Field Company of Engineers, 2 Bridging Trains, 2 Monitors, and 1 Patrol-steamer; the Northern, 1 Battalion Rifles, ¼ Squadron, 2 Monitors, and 1 Patrol-steamer. The use of flotillas should be confined to very wide rivers, etc., as otherwise the vessels could make no progress under the fire of superior artillery. If the defender has torpedo-boats an attack could hardly succeed, and in any case the use of patrol-steamers in wide rivers is indispensable.

France.—In September, 1900,† manœuvres on a large scale were held

* The excellent marching of the troops, the good sanitary arrangements and details of the reserve rations, etc., were brought to notice in the JOURNAL for January, 1901, p. 95, being epitomised from the *Revue Militaire Suisse*.—TRANSLATOR.

† The programme of the manœuvres in September, 1901, was published in the March, 1901, No. of this JOURNAL, p. 355. They were designed on a large scale, and promised to be of great interest, which in the result was however chiefly spectacular.—TRANSLATOR.

in La Beauce, under the direction of General Brugère. Unlike in those of former years, the drill-books were left untouched, and only the orders for the carrying out the manœuvres and a few directions regulating the conduct of the actual fighting were issued. All movements were as much as possible to be directed by signalling. Extensions for battle were to be slowly and methodically carried out, time being allowed for the preliminary artillery action. The frontage occupied was to be strictly confined to that which was suitable to the troops on the ground who were on a peace footing, and was not to extend to that prescribed for units at full war strength, without special permission from the Director of the manœuvres. No movements were allowed after the manœuvres for the day were over or during the night.

A South Army, composed of the V. and IX. Army Corps and the 5th Cavalry Division, comprising 48 Battalions, 40 Squadrons, and 42 Batteries were placed under General Lucas.

A North Army, composed of the IV. and X. Army Corps and the 1st Cavalry Division (52 battalions, 40 Squadrons, 41 Batteries) was commanded by General Négrier. A 4-inch howitzer position battery was tried. Every unit engaged was given part of its regimental transport, each company having 1 ammunition wagon, and part of the hospital and supply transport accompanying the head-quarters.

The *General Idea* for the 15th September, and following days, was that Paris being invested by the enemy (South Army), a relieving force is on the march from the Loire. A Northern Force is covering the Line of Communications of the besiegers. Before the movements, the advanced troops of the contending forces were 30 kilometres (19 miles) apart. On the 15th both advanced. The South Army had pushed forward a Division as an Advanced Guard for its forces. The reconnaissance was however a failure, and the Director of the manœuvres had to interfere to put the contending forces in the right direction, or they would have passed each other undiscovered by either side. On the evening of the 15th they were only 13 kilometres (8 miles) apart, so that the employment of the Cavalry Divisions as advanced cavalry was impracticable.

The days on which actual collision took place offer but slight interest. A night attack took place on the early morning of the 16th, which was remarkable for the utter absence of reconnoitring by the Cavalry of the defence and for the want of vigilance of the outposts. A field electric light apparatus failed, for though it lit up the point of attack, it vividly betrayed the position of the attacking force. It was only when raised about 5 feet that this defect was obviated.

On the 18th September, manœuvres against a "marked" enemy were carried out. The South Army, now made up to 4 Army Corps and 1 Cavalry Division, advanced, covered by this Division, and by the IV. Army Corps as advanced guard to the whole force, and followed by the IX. Corps in reserve to make an enveloping attack on the enemy's

position. In front of the right wing of the Defensive Force, and about 1,500 metres from the main position, was an advanced position on a frontage of about 4 kilometres ($2\frac{1}{2}$ miles). In a fight between the marked enemy hampered by strict defensive instructions and a strong advanced guard, such as an Army Corps, the inherent defects of advanced positions could hardly be displayed.

According to the Director's instructions, the movements of strong massed reserves, the passage through the lines of guns by the attacking infantry, and the deployment of the troops destined to the assault opposite the principal point of attack was to have been practised. The Manœuvres closed as usual with a grand parade, march past, etc., the only novelties of which were the advance in line of the whole corps artillery and the delivery of quick-fire opposite the tribune of the President. 15 rounds a minute were fired by each gun with blank cartridge. The whole manœuvres were of a parade nature. The Director often interfered, nominally to see that the programme was adhered to, but in reality also to ensure the simultaneous advance of the whole force in the attack.

The battle training of the Infantry is said to have been deficient. Their excellent marching and the silence with which all movements were performed were, however, praiseworthy. The Cavalry made a less favourable impression, especially as regards its scouting, and, when supported by its Infantry in the fight, scouting was altogether neglected. The massing of guns was attempted, but not entirely with success. The employment of motors for the rapid movement of general and staff officers and for the traction of supplies was practical.

The introduction of meat carts much facilitated supply. For each battalion, each Brigade-Division of field artillery, and each Division of corps artillery a meat cart was provided, which moved with the light baggage. Every man carried 2 days' preserved rations; 2 days' preserved meat are carried with the heavy baggage. In the supply train 4 days' preserved rations per man are carried, and 4 days' meat rations per man are driven along, so that in an Army Corps 8 days' supply per man are carried. The flocks and herds are divided into 2 sections, each section representing 2 days' supply for the force, and the whole being driven in rear of the heavy baggage. Behind the supply train follows the meat supply park with 2 days' meat rations per man. The meat wagons convey the first meat rations to the troops.

The heavy baggage with the first section of the animal train follows the fighting columns at such a distance as would enable it to be reached on halting at the end of each day's march. Then the fresh meat supply in the wagons is distributed for the following day, the animals following them are slaughtered and cut up, and the pieces hung on the hooks with which the wagons are provided. The slaughtered animals are, if possible, replaced by those collected in the country, the meat-supply park not being trenched on if it can be avoided. As the meat wagons follow in the

light baggage and meat rations for the following day have already been issued, the troops can always cook their dinners on arrival in camp without waiting for the heavy baggage to come up.

In France no new regulations for the tactical employment of Infantry have been issued. A new Infantry Drill is, however, in contemplation, and a special committee has been sitting to consider this, of which General Lucas is president. Its propositions are being provisionally tried, one infantry regiment in each Army Corps being entrusted with this duty. In the manoeuvres of 1900 the endurance of the soldiers under hardships was remarkable. The quiet regularity with which all movements were executed was recognised, the troops being thoroughly trained to move by signal. The pronounced offensive spirit, the "forward" impulse, led often to want of proper reconnaissance, which resulted in frequent surprises. Thorough preparatory fire was not altogether apparent, nor was mutual support by lateral bodies. Great depth and delay in deployment characterised the movements, the attempt at simultaneous attack being a great feature. All this may be set down to manoeuvre habits, for the regulations are emphatic as to the necessity for thorough preparation by fire.

General Banual, a member of the Infantry Drill Committee, has published his views formed while he was an active regimental commander.

He emphasises the individual and methodical training of each man, demands that all exercises shall be suited to battle requirements, rejects the view that victory depends on the success of a number of isolated combats, and requires the simultaneous attack of masses in equal strength along the whole front, in order to exhaust the defender at all points and prevent his withdrawing troops from any part to reinforce with his reserves that most seriously threatened. The decisive attack is not only to penetrate the enemy's position, but rather to push forward through the gap thus formed the supporting troops, hitherto kept in fairly close order, and, rapidly deploying them, to spread out in fan-like extended order and envelope the defenders, so as to prevent their restoring the battle at that point. The supporting troops must, therefore, make no halt in the position, but push forward.

In the main the author is abreast of modern thought and rightly assigns the greatest importance to the action of the Infantry: "*Where the Infantry strides forward in battle, victory lies near. Where it gives way, defeat is not far off.*"

Germany.—Musketry Regulations to suit the Rifle M/98, have been introduced. Machine gun batteries of 4 pieces, which were first tried at the Imperial Manœuvres of 1899, have been supplied. They are especially valuable in hill warfare, not only in defence, but in the attack. The British used them with effect in the Soudan and Boer Wars. General Rohne's views as regards Infantry and Artillery fire continue to prevail. General von Schlichting's influence on the tactical training of the Ger-

man Infantry is evidently great. The opinions of von Boguslawski, von Schlichting, and von Scherff are well epitomised in an article in the German Appendix No. 10, Beiheft of the "International Revue," 1900, headed: "The Infantry Fight and controversial questions." On the 1st January, 1900, the new issue of the Regulations for Field Service (Felddienst-Ordnung) was made. The principles of the 1894 edition were adhered to. Changes necessitated by the abolition of the Corps Artillery were made, as well as some additions regarding the employment of Cycles, War Balloons, etc.

The distance between Cavalry Connecting Posts is doubled (now 12 miles), and that between Cyclist Posts fixed at 50 kilometres (31 miles), new instructions for the mobility of Contact Squadrons are given. As a rule an Infantry Division (12 Battalions) will push forward 1 Regiment (3 Battalions) in the Advanced Guard. Whether artillery is to be sent is decided by the commander. The distances are increased from the van to the main guard and may now be nearly a mile, and a company pushed out from the van may be 554 yards in front of it. Infantry marching alone strengthens its point, indicating the intention to scout for itself. This may sometimes be done by cyclists. The splitting up of the advanced troops into small parties is objected to.

In outposts, the term Piquet is abolished for Cavalry, this word being restricted to Infantry. No stress is laid upon a line of Cavalry Outposts in front of the Infantry, but when in contact with the enemy the envelopment of the enemy's flank by Cavalry pushed out from a flank is recommended.

The posting of Infantry Piquets* is no longer dependent on the importance of the road to be guarded, but it is considered important to secure any post which is distant from its company, leaving the road itself to be watched by an independent non-commissioned officer's post.

The importance of a post, not its strength, is to determine whether it should be an officer's or non-commissioned officer's post.

Cavalry outposts are instructed to use their firearms. A vedette consists of 3 men generally dismounted, of which 2 are constantly watching, the other resting.

"Advanced Squadrons" support the contact squadrons and connect them with the outposts. At night officers' or non-commissioned officers' posts remain in touch with the enemy. Some cavalry are also attached to each outpost company for scouting.

On the march the average rate for a Division is reckoned as $2\frac{1}{2}$ miles an hour, inclusive of halts. Columns are to be shortened. Artillery ammunition wagons move in rear of the column of guns, the divisional ammunition columns in rear of the fighting troops of the column.

The Imperial Manœuvres, 1900, in Pomerania.—The Report gives a

*It will be remembered that as a rule in the German Service whole companies are pushed forward on outpost duty, finding the supports, piquets, and any detached or examining posts, etc.—TRANSLATOR.

short account of these, but as they were especially detailed in this JOURNAL for February, 1901, it is not translated here.

The *Felddienst-Ordnung* directs that no pauses are to be allowed at manœuvres to admit of the receipt of orders or changes in command, but that everything is to be carried out as in war.

Italy.—Company commanders of 4 years' service are now allowed horses. A 4th Cycle Company is now added to the three Bersaglieri Regiments Nos. 4, 5, and 9.* The Cycles are not of the former folding pattern, but made on the *Melli-Rossa* system. 2 Cycle Companies took part in the Cavalry Manœuvres.

Russia.—The new Infantry Drill, provisionally issued in 1897, has been approved with slight amendments after 2½ years' trial. In principle troops in close order work entirely by word of command, so individual fire is then forbidden. In close order the formations are not so dense as formerly. A new "rapid step" has been introduced for the advance under effective fire, but no fixed rate is laid down. The length of pace is from 28 inches to 35 inches, according to the height of the man. In the Battalion in Attack and Defence it is laid down that only exceptionally are whole companies to be extended or to reinforce. The Russians have, however, given up the French plan of having no line of supports in the attack which they had provisionally adopted, and have resumed that of having supports in the first line as the Germans have.

The Manœuvres held in 1900 were not altogether satisfactory, the Cavalry not having been pushed forward enough, especially during the passage of the Weichsel between Warsaw and Ivangorod by a large force of 4 or 5 Divisions (68 Battalions, 47 Squadrons, 192 guns), defended by a force of 50 Battalions, 44 Squadrons, 150 guns. The points of crossing were reported early to the defenders, who massed their troops accordingly to oppose the passage, withdrawing them from all other points of passage. This was taken advantage of by the attacking force to make good their crossing at some of those points, the reported attempts having been mere feints to deceive the defenders.

Great use was made of Mounted Rifles attached to Infantry for scouting purposes.

General Dragomiroff, remarks, in regard to the tactical manœuvres, which were held in the Petersburg District and which lasted 12 days, 95 Battalions, 56 Squadrons, and 42 Batteries taking part, that the rôle of Horse Artillery is different from that of Field Artillery. The former begins where the latter leaves off; that is, the Horse Artillery should, owing to the rapidity with which cavalry moves, at once gallop forward to a flank, opening fire on the opposing cavalry and continuing to fire on it until the advance of the cavalry masks its fire. Then it turns its guns on the hostile artillery. Field Artillery, on the other hand, should first engage and subdue the hostile artillery and, when that is done, turn its fire on the enemy's Infantry.

* There are 14 Bersaglieri Regiments, each of 3 Battalions (1,000 Rifles).—TRANSLATOR.

Winter Manœuvres were held at Kaluga. The scouting was done by men on snow-shoes, and the guns were drawn on ordinary country sledges, 3 being used for each field gun. Special sledges were also constructed, one for the gun and carriage, the other for the limber. These were not a success, the centre of gravity being too high up.

War dogs were tried, the following being the resulting opinions formed :—

1. Dogs may be of service on watch posts, where their natural alertness and sense of smell may supplement the intelligence of the men.
2. They are not trustworthy enough to deliver messages or cartridges.
3. In each company a certain number of men would have to be constantly employed in training and looking after these dogs, which would withdraw them from their more important legitimate duties.
4. Well-bred dogs are no more trustworthy than common yard dogs.

The Russian Field Service Regulations have been much criticised, especially as laying down too much in detail what is to be done in each particular case.

This year Rules for the employment of the three arms in battle were issued. Detailed instructions are given for the conduct of Infantry, Cavalry, and Artillery in attack, defence, operations by night, in winter, on the steppes and in the mountains.

Stress is laid on the massing of Artillery and Cavalry in battle, the scouting of the Cavalry is to be continued during the action, and the cavalry leader is to lose no opportunity of attacking that offers, no excuse being allowed, such as the presence of hostile cavalry, etc.

Whereas the German Regulations chiefly deal with the encounter battle, the Russians prescribe what is to be done in the attack on an enemy already deployed in a defensive position. Until the Infantry arrives within effective rifle range its movements are to be subordinate to those of the artillery. From that point onwards, the artillery is to conform to its requirements of the Infantry fight.

Great stress is laid on the offensive throughout, and as the Russian advanced guards are large and posted far forward, independent advanced guard actions are favoured by the Regulations.

On the defensive the necessity for counter-attack is accentuated even to the delivery of partial sallies from the position. Advanced positions may be occupied, but must not be defended to the last, as the assailants might then, if successful, follow their defenders closely, and enter the main position with them. The directions for night attacks are to advance without firing with deployed companies in two lines, all distances and intervals being shortened. The touch between companies is kept up by infantry patrols. Special patrols watch the enemy. Reserves are close up. In the instructions for night attacks, directions are always to be given as to what the leaders are to do in case the attack is prema-

turally discovered by the enemy. Deployment from the march formation to night attack formation is to be delayed as long as possible. The position is to be stormed in silence, and only when it actually comes to the *mêlée* are cheering and drum-beating to be allowed, as in the dark it might easily happen that the actual position has not been entered, and the noise made would preclude the possibility of surprise.

CAVALRY TACTICS.

General Observations.—The war in South Africa has again shown how important and indispensable a well-mounted and trained cavalry is. The theoretical views regarding the disappearance of cavalry in face of modern firearms have vanished. The employment of cavalry masses at *manceuvres*, which has become general, proves this. The strategical employment of cavalry was only practised in Germany. At the other *manceuvres* the distances between the opposing forces at the commencement was too slight for proper reconnaissance on a large scale. In the South African War the increased importance of tactical reconnaissance was shown. Peace training in careful reconnaissance and riding, and in properly reporting what is useful in war, is seen to be more than ever necessary. But no mere cut-and-dried instructions, nor the too frequent peace practice of reporting as much as possible, will produce skilled and experienced scouts. Strictly limiting practice in peace to that which is possible in real war may do so. In France the best reconnoiters are now distinguished by a special badge, which has been proposed in Germany.

Signalling with heliograph and limelight, as used in South Africa, is now introduced at all great *manceuvres*.

Wireless telegraphy, war balloons, messenger pigeons, stationary and portable limelight apparatus, enhance the efforts of the cavalry in reconnaissance.

The necessity for a numerous, well-mounted and *trained* cavalry for pursuit has once more been established by the Boer War.

The cry in South Africa was throughout for cavalry and more cavalry, and it still continues. This points to the necessity for an increase of the German Cavalry. In the last 30 years Russia has increased her cavalry by 212 squadrons, Austria by 105 squadrons, and France by 70, whereas the corresponding increase in the German Army has been of 21 squadrons only, although its Infantry has been increased by 203 battalions and its Artillery by 322 batteries since 1870.

The use of firearms by Cavalry in case of need is more than ever required, but this does not necessitate its conversion into Mounted Infantry, as some advocate, though increased attention will have to be paid to long-range firing and judging distance, the use of machine guns, etc. The Boer War has shown the great use of the Cavalry machine guns.

Though the Mounted Infantry attached to the British Cavalry in South Africa rendered occasionally good service, we must remember that their horses broke down so quickly, owing to their want of knowl-

edge of horse management, that only a country as rich and as well assisted as England could have afforded to replace the waste in horse-flesh. For European warfare it is undoubtedly better to have Cavalry able to perform their task without such auxiliary aid.

The question of Horse Artillery with the Cavalry Divisions must also be considered. The proposal to have 3 batteries Horse Artillery with the Division, so that one battery may be attached to each of the 3 Brigades, has much to recommend it.

In Germany, France, and Russia experiments were made at last year's manoeuvres with boats made of lances and sail cloth for the passage of small rivers. In Austria aluminium boats were tried, and gave general satisfaction.

The Boer War has brought to the front the remount question and the breeding, feeding, and training of horses for war purposes, and all European nations are engaged in considering these points and the supply of horses to officers.

The use of cyclists attached to cavalry units to relieve the horses from much orderly work is attracting attention. Though in France and Italy folding bicycles are still adhered to, in Germany and Austria they have been given up, rigid cycles being considered more practical. In Germany Infantry Cyclist detachments were used as fighting units with the Cavalry Divisions, but in other countries this has been much opposed.

Motors have been found very useful with Cavalry; and as traction engines shorten the length of trains by from one-third to one-half, they will be of great importance in bringing up the trains to masses of Cavalry pushed ahead. In England they were tried for the transport of heavy guns.

CAVALRY OF THE CHIEF POWERS.

Austria-Hungary.—In Austrian Cavalry circles the wish to obtain stouter built horses has been expressed. White Artillery horses are no longer to be used, as offering too conspicuous a mark. Those of light colour bought in Russia were painted over, and the darker colour thus obtained is said to last a month or more.

At the manoeuvres in September in Galicia the opposing forces were too near one another at the outset, and the ground was too unfavourable for successful Cavalry strategic and tactical action. Infantry rifle battalions were attached to the Cavalry Divisions. Each Cavalry regiment had a Cavalry pioneer section of 8 men equipped for telegraph work, demolitions, etc.

Cyclists were used as messengers, but not as fighting troops. Motor cars and traction engines were used, but did not answer well on the heavy ground, from which it seems that they were not of very perfect construction.

This year 4 Army Corps with several Cavalry Divisions are to operate near Fünfkirchen, in South-West Hungary.

England.—The British Cavalry has had opportunity during the past year of ascertaining by the searching experience of war the faults of its peace training.

Notwithstanding her previous experience of the Boer fighting methods, it needed severe reverses to convince England that her tactics, though they might be suitable to wars waged against inferiorly armed tribes, were inapplicable to her present opponents, and that not only must her infantry tactics be changed, but that she required a Cavalry well trained in reconnaissance, which should combine mobility with fighting power. A Cavalry Division was therefore formed under a capable leader, with a numerous Artillery and Mounted Infantry attached, and a country was selected for the chief theatre of operations where the advantages of this mobile force could be utilised. To the organisation of this Cavalry force may be attributed the great change which soon took place in the position of affairs.

The writer here gives a *résumé* of General French's well-known operations up to the occupation of Bloemfontein on 3rd March, 1900. After this Cavalry and Horse Artillery operations were for the time impracticable owing to the loss and exhaustion of the horses, few regiments having more than 150 horses, and the Artillery being compelled to move at a walk only. It was only after many weeks that the arrival of 4 fresh Cavalry regiments and of remounts for nearly the whole Cavalry that the Cavalry Division was able again to take the field.

By the end of December, 1900, 123,428 fresh horses and 66,727 mules had arrived in South Africa.

The Basuto and Burmah ponies are said to have stood the voyage and work on the veldt best. The treatment and feeding of the horses by the Mounted Infantry, who showed themselves ignorant of the management of horses, is much criticised, as also the quite insufficient numbers of the Veterinary Department.

In consequence of this, Government breeding establishments are to be started in England.*

The indifferent scouting which caused touch with the enemy to be frequently lost, though accounted for by the absence of trustworthy maps, the over-laden, over-worked, hungry, and thirsty horses in a strange country where invisible foes constantly shot down the advanced scouts, may also be attributed to the indifferent peace training in this art. At the Cavalry Manœuvres held in September, 1900, great improvement is said to have been made in regard to this, as it was carried out with close attention to war conditions.

Where the Mounted Infantry† which was 10,000 strong, was properly handled it rendered good service, but not where it was recklessly used, as by Colonel Hannay, who rode against Cronje's entrenchments at Koodoosrand, and fell with the loss of half his force and horses.

* This is mere newspaper gossip, as no orders have been issued for this.—TRANSLATOR.

† The writer probably alludes to our Imperial Yeomanry.—TRANSLATOR.

The dress and equipment of the men seem to have been good, but the weight on the horses excessive.

France.—All Dragoons will apparently be shortly provided with lances. The number of rounds for rifle practice will be much increased. The dolman is to be given up. The 1st and 5th Cavalry Divisions each of 3 Brigades of 3 Regiments each, manœuvred in September, 1900, south-west of Chartres, under the direction of General Brugère.

Strategical reconnaissances were not properly carried out owing to the distance between the opposing forces being too short. The tactical reconnaissance, especially on the 15th September, was a failure. Messenger pigeons were used and cyclists as messengers only. Signalling was practised.

Motors were much used by the Commanders at the rate of 37 miles an hour. One traction engine drew 30 heavy supply wagons.

All Cavalry officers are to be made acquainted with the use of the electric telegraph.

Germany.—The new Field Service Regulations (Felddienst-Ordnung, 1900), introduced certain changes in the strategic use of Cavalry.

The Cavalry Division is no longer responsible for "screening." This is performed by the divisional Cavalry, which, it is considered, should be increased.*

"Scouting" squadrons is a new term. Much greater latitude is permitted in the arrangements for Cavalry Reconnaissance, no hard and fast schemes being allowed.

The report praises the British Cavalry and Mounted Infantry equipment, short boots and putties being easier put on and replaced than the long boots worn by German Cavalry. Lancers require no swords; these should be replaced by a short hunting knife, that could on occasion be used as a bayonet with the carbine.

Besides the 11 machine-gun batteries already in the German Service, 5 more are to be added by the Establishments of 1901. Hitherto they have been attached to Infantry or Rifle Battalions. Their employment, however, with the Cavalry Divisions seems to be indicated. This is done in Switzerland and England.

The report goes into the action of the Cavalry on both sides in the Great Manœuvres in Pomerania, which have already been described in this JOURNAL, and expresses its satisfaction with the work done, and with the progress made in signalling, wireless telegraphy, pigeon-post service, etc.

The Engineers attached to the Cavalry Divisions were carried in wagons. Motor-cars were used by the staff and for the express messenger service, and proved most useful.

Russia.—The Field Service Regulations of 1899, though still inclined to lay down too much, are a distinct advance upon the former issue. The

* The German divisional Cavalry consists of 1 Regiment Cavalry of 3 Squadrons, whereas at present only 1 Squadron is allotted to a British Division.—TRANSLATOR.

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A DISEMBARKATION IN SAINTONGE.

TRANSLATED BY LIEUT. GORDON ROBINSON, ARTILLERY CORPS. U. S. A.

(From *Armée et Marine*.)

IT would, perhaps, be an exaggeration to affirm that the combined operations executed the other day, to the north of La Rochelle, by some detachments of land and naval forces, have done much to advance tactics.

Favored by splendid weather, the operation of disembarking was a beautiful spectacle; that is all; but one would not dare, without causing the participants themselves to smile, to call it a military operation.

It is pretended that money was lacking, that friction was caused between the army and navy; the first claims too much, the second grants too little; the truth is, that this year it was desired and it was necessary to do something, if only to prepare for more serious combined manœuvres for next year. That something, which consisted in an embarkation and disembarkation of men and of *matériel*, was done under favorable conditions. Whatever one may say, the impulse has been given; they will do better next year.

The plan of operations executed on the 29th of August can be summed up thus: A squadron come from the north, convoying transports loaded with troops and *matériel* passes around the Island of Ré to the south, passes between that island and the mainland and throws some troops upon the coast of La Ferlatière, between the point du Plomb and the point de la Refentie, to the north of the port of La Pallice.

From a strategic point of view, the operation was singularly hazardous.

The sea-coast to the north of La Rochelle lends itself admirably to a serious defense; and the squadron taken under the cross-fire of the batteries of Sablonceaux, for example, and of Saint Marc, would have run serious risks. The distance which separates these two batteries is 3000 metres. The squadron following the middle of the entrance to the harbor would defile then before guns of heavy calibre at a distance of about 1500 metres. In allowing the advantage to the assailant, let us admit that vessels of war would have been subjected to only insignificant damage; but would it have been likewise with chartered merchant vessels loaded with troops? Can we even suppose the fire from the coast or the island to be so poorly directed as not to sink even one of the merchant vessels?

What ravages would have been produced by shrapnel fire directed upon the three thousand and some soldiers massed upon the decks of the *France* or the *Atlantique*, at the rate of one man to the square metre?

These reflections made, let us pass to the account of the operations.

The squadron of the north had been signalled the evening of the 28th of August at the point of "Baleines" (Isle of Ré).

It comprised the *Masséna*, flying the flag of the Commander-in chief, the *Formidable*, the *Courbet*, the *Bauvines*, the *Amiral Tréhouart*, the *Valmy*, the *Jemmapes*, the *Dupuy-de-Lome*, the *Bruix*, the *D'Assas*, the *Surcouf*, the *Cassini*, the *Yatagan*, the *Fauconneau*, and the *Darandel*, also three chartered merchantmen, the *Atlantique*, the *Médoc* and the *France*.

The morning of the 29th the squadron stood out to sea, and doubling the lighthouse of Chauveau (isle of Ré) debouched at nine o'clock before the port of La Pallice.

Formed in line of files, the *Masséna* at the head, the torpedo boats north, and torpedo boat destroyers flanking the line, the *Cassini* in the rear, preceding the merchantmen, the fleet opened the engagement in the course which separates the Isle of Ré from the mainland.

At the moment when the *Masséna* resumed her course toward the north, the battery of Chef de Baie opened fire, then that of La Pallice fired in its turn, then that of the Point des Minimes, to the south of the bay of La Rochelle.

The battery and the redoubt of Sablanceaux were not slow in joining their fire to that of the mainland batteries, and it was under the cross fire of these works and of the battery of the Points Sainte-Marc, that about ten o'clock, all the squadron defiled and came to anchor between the isle of Ré and the coast.

The few guns fired from the war vessels were considered sufficient to overwhelm the sea-coast batteries. The coast was open, but the mobile defenses were still in existence.

Behind the earthen dykes which lined the shore some field-guns were placed in battery, and some infantry supports were massed. It was necessary to clear the shore before thinking of landing the main body of the troops.

At 11 o'clock the *Cassini* advanced toward the beach situated between the Point de la Refentie and the Point du Plomb and opened fire upon the troops of the defense. A battery located at the Point de la Refentie replied sharply; some torpedo-boat destroyers came up to support the action of the *Galilée*, which was no more than good rifle range from the infantry. The latter moved out and from shelter on the beach maintained a heavy fire on the crews of the vessels.

It was at this moment that an amusing procedure occurred. The defending troops were having the better of the contest when several boats drew away from the *Cassini* and from the torpedo-boat destroyers and proceeded to place the disembarking pennants. The general impression was that this operation was premature, since the land resistance was far from being overcome. However it might be, they planted the stakes from which the boats and lighters for disembarking took their direction.

At noon the steam launches of the squadron towed from the fleet boats loaded with infantry troops. They soon left the tow, and the boats which were on their way came to the beach. The sailors leaped

overboard and pushed up to dry land and fastened in place a trestle, which permitted the infantry to disembark.

The men leaped to the ground and commenced firing on the defending troops.

To the north a force had just disembarked with four 65 mm. guns.

The defense was repulsed. They ceased firing and withdrew to the heights which dominate the beach.

The artillery took its position, supported by some companies of infantry. In less than half an hour the disembarkation of the 62d was completed, and the 65 mm. guns protected the advance.

This advance was executed by echelons, each movement being hotly disputed.

Finally, at forty minutes after noon, the artillery covering the retreat, the general embarkation was safely executed.

Three packet boats had been chartered for the expedition.

The *Atlantique* had on board two general officers, ten superior officers, eighty subalterns and 2350 men. The *Médoc* transported four superior officers, sixty subalterns, 1250 men, 700 horses and 12 field-guns. The *France* had brought to La Pallice a general officer, seven superior officers, 75 subaltern officers, 3200 men and 37 horses.

The small corps of disembarkation comprised then a total of about 6000 men.

In order to land all these men, there were employed, besides the ships' boats, several lighters sent from the port of Rochefort and towed by three tugs commanded by the lieutenant de vaisseau d'Escriennes. On one of them, the *Bayard*, there embarked General Clamargan, chief of staff of the colonial army corps and several army and navy officers, to whom Lieut. d'Escriennes offered the most gracious hospitality.

Each of the tugs had to go and come between the packet boats and the shore. The movement was executed with the greatest order. It is to be regretted, however, that means of descending into the boats were not more numerous; time would have been gained thereby, a not inconsiderable advantage in operations of this nature.

Nevertheless the disembarkation of the troops upon the Plomb beach was completed about four o'clock, and the regiments reformed and advanced while the *Médoc* and the *France*, profiting by the tide, entered the port of La Pallice to unload the horses and matériel.

The operation at which the Minister of War was present was far from being as interesting as the disembarking in the Bay of Plomb. In fact, every method of unloading was used by the packet-boats, and the only point worthy of attention is that the ships had been prepared and the baggage made ready by the men.

Upon the deck the horses formed two lines marked by cables, which prevented the animals from advancing or backing off.

Slings under the belly reduced the effect of rolling and pitching and prevented falls. Once fallen, a horse would have been trampled by his

neighbors and it would have been impossible to raise him again. Not an accident happened on board. The only victim among the animals was a poor horse, which fell during the unloading and broke his back on the deck.

In unloading the animals, use was made only of the windlass and tackle, which, raising the horse simply above the deck, deposited him not less swiftly upon a mat of hay and straw. This unusual operation did not appear to frighten the brave horses too much, who without urging calmly took their places in the line. The *matériel* transported by the *Médoc* was landed with equal rapidity.

To raise a gun and its carriage was only play for the powerful apparatus with which our ships are provided.

While the Northern squadron was going through the operation of disembarking, a division of the squadron of the Mediterranean anchored before La Pallice, and after having provisioned its vessels, set sail towards the North without having in any way taken part in the manœuvres.

The Northern squadron itself went out to sea again during the evening.

The combined operations on land and sea are finished, the grand manœuvres, properly speaking, are about to begin.

GLORY.—A French regiment, the history of which is associated with some of the most tremendous battles of the Franco-German War, recently placed upon a war memorial the inscription, *Gloria Victis*, the thought being that even those who were vanquished had, nevertheless, won glory by their prowess. The Minister of War, however, on hearing of this, disapproved of the inscription and ordered it to be effaced. In a very terse communication to the colonel of the regiment he said that the old historic maxim, *Vae Victis*, is the true one, harsh though it be; that glory is not for the vanquished, but only humiliation and sorrow; and that the regiment instead of claiming honor for the conquered should rather itself learn how to conquer and thereby win the supreme glory of the successful soldier. There is something Napoleonic about this utterance, and it is in decidedly refreshing contrast to much of the sentimentalism that marks French thought on the subject of their great defeat.—*Exchange*.

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THE MILITARY PRIZE ESSAYISTS.

(Editorial N. Y. Sun.)

FOUR important competitions are to be held yearly, hereafter, by the MILITARY SERVICE INSTITUTION OF THE UNITED STATES, which invites essays on various suggested military subjects, and awards prizes to the best articles in the contest.

The first and most important competition is that for the Gold Medal Prize. For the best essay, a gold medal, \$100 in money and a life membership in the Institution are the prize; the second-best essay receives an honorable mention, and of late years the author has received a prize of \$50 in money.* The competition is open to all persons eligible to membership in the Institution; that is, to all present or past officers of the army and the National Guard.

The competition was begun in 1879, the first prize medal being given in 1880 to the late Gen. John Gibbon, then a colonel, for an essay on "Our Indian Question." The prize-winner was a famous Indian fighter, and wrote with his views crystallized by long experience with his subject.

There was no competition in 1881 or in 1890; and no essays were received in 1898; but the list of prize-winners, to say nothing of the unsuccessful competitors, includes the names of many officers who have won distinction since they won the Institution's prizes.

Colonel Lazelle won the medal in 1882. The subject of the essays was: "The Important Improvements in the Art of War During the Past Twenty Years, and their Probable Effect on Future Military Operations." It would be interesting to look over those twenty-year-old predictions now, and see if the vaticinations have been realized. Surgeon-Major Woodhull was the winner in 1885, with an essay on the "Enlisted Soldier." In 1887, the winner was Lieutenant Sharpe, now an Assistant Adjutant-General; and the second place was taken by William Cary Sanger, at the time Quartermaster on the Second Brigade Staff of the National Guard of this State, and now Inspector-General of that Guard, as well as Assistant Secretary of War. No prize was awarded in 1888, when the subject was "The Danger to the Country from Lack of Preparation for War."

The subjects have varied from year to year between purely technical ones, and those attractive to persons outside of the army. In 1891 the subject was: "The Terrain in Its Relation to Military Operations"; in 1892, "The Army Organization Best Adapted to a Republican Form of Government"; in 1893 the essays were on "The Nicaragua Canal and Its Military Aspects," and the winners were Captain Scriven of the Signal Corps and Lieutenant Hamilton of the Artillery. The next

* Together with a Silver Medal. (Ed.)

year "Discipline" was the subject; then came essays on the art of supplying armies in the field, and that year Captain Sharpe of the Subsistence Department was "first and the rest nowhere," for no second prize was awarded. In 1899, when the subject dealt with the relation between National Guard and army, the winners were two officers of our own militia, Colonel Britton, supernumerary, and Lieutenant Barry of the squadron. Last year Captain Allen of the Sixth Cavalry won second prize for his essay on staff organization; no first prize was then given.

For the prize essay of 1901, the subject is: "Are Disappearing Guns Essential to the Efficient Defense of Our Seaports?" This subject ought to bring out many interesting essays, for there is a bitter dispute in the army on the matter.

The second competition is that for the Seaman prize, founded by Dr. Louis Livingston Seaman, which was won in 1900 by Surgeon-Captain Munson with an essay on "The Ideal Ration for an Army in the Tropics"; and in 1901 by Captain Rhodes, Sixth Cavalry, for his article on "The Utilization of Native Troops in our Foreign Possessions." The prize is \$100 "in gold."

Two new prizes, not yet competed for, are the Hancock and the Fry prizes. These are to be under the same conditions as govern the Gold Medal prizes, on "subjects directly affecting the military service;" the prize essay is to be the best article published in the *JOURNAL* of the Institution during the six months ending April 30 for the Hancock prize, and the same period ending Sept. 30 for the Fry prize. The awards are to be in each case \$50, \$25, and honorable mention. The Fry prize is especially for competitive articles relating to army reform.

These yearly prize competitions, open to the army and the National Guard, are important factors in bringing together the Regular army and the militia. Three of the winners of the Gold Medal Prize have been officers of our Guard, and doubtless some competitors who did not win prizes have also belonged to the New York Guard. The continuance of the competitions is important; and officers of other than the New York National Guard ought to enter. The interest in military matters of this kind cannot be too widespread.

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A GERMAN INVADER.

(From *N. Y. Courier des Etats-Unis*.)

AN officer of the German army, Lieutenant von Edelsheim, of the 2d Regiment of Uhlans of the guard, on detached service with the General Staff, has just published a brochure entitled "Operations on the Sea." In this brochure the author, in giving an account of the development of the German navy, inquires into the means by which Germany could successfully attack England or the United States. Lt. von Edelsheim sets himself to show that, following the motto of his sovereign, "our future lies on the water," the naval forces of Germany will frequently be called upon to coöperate with the armies on land. Moreover the grand manœuvres held this year in France (manœuvres of the West), in Germany (in the neighborhood of Dantzic), and in Russia (on the borders of the Gulf of Finland), manœuvres during which there took place the disembarking of troops from transports, indicate with certainty that these great Powers recognize the necessity of having the naval forces coöperate with the land forces in operations. This marks a new era in the history of strategy. For this reason it is interesting to know the tactical plans that Germany, according to the opinion of Lt. von Edelsheim, would employ to reach and attack the United States.

This is what the German lieutenant writes: "A war with the United States of North America would necessarily take place under different conditions than in the case of a war with England. During these latter years we have had at various times political differences with that country (United States), generally growing out of commercial questions. Up to the present, these disagreements have been smoothed over because we have made concessions. But since these concessions have a limit, it is permissible to enquire what forcible means we might employ, if circumstances required, to put a check on the exactions of the United States in opposition to our interests, that is to say, to secure our ends by force. Now our first element of force is our fleet, which has every chance of successfully fighting against the naval forces of the United States, dispersed as the latter is over the two oceans. It is evident that, considering the great extent and the immense resources of the United States, the defeat of the American navy would not be a decisive victory."

After having shown that an exclusively naval war would not be sufficiently decisive to secure the ends sought, the author states his opinion that a combined action of the land and sea forces would put an end to hostilities and secure the desired result. "Considering," says he, "the enormous extent of the United States, there would be no question of an invasion of the interior of the country, but one could, with every chance of success, strike at the sea-coast and cut the great arter-

ies of import and export, in such a way as to paralyze the industrial and commercial life of the United States, which would oblige that power to sue for peace.

"If the mobilization of the squadron of transports and the corps intended for the disembarkation begins at the moment of departure of the fighting fleet for American waters, we may expect that the troops for disembarking could go into action on United States soil at the end of about four weeks. Now, the United States is not in a position to oppose in the same length of time, to our army corps, an army of equal strength. The Regular army of the United States actually consists of about 65,000 men, but of this number there are not more than 30,000 available for the defense of the mother country. Besides this, it is necessary to subtract from this 30,000 at least 10,000 men absolutely required for guarding the Indian territories and the sea-coast defenses. There remains then only about 20,000 men of the Regular army available for the war at the beginning of the campaign. It is true that there is also about 100,000 militia, but during the last war the most of them did not respond to the call for troops. Moreover, this militia is still armed for the most part with muzzle-loading rifles and are generally poorly instructed.

"On account of the time occupied in transporting the German troops across the sea, it would not be possible to take the United States by surprise; but as an offset to this the disembarkation could be effected suddenly in an unexpected place along the sea-coast. When we consider that the Americans have no well prepared plan of mobilization in time of peace, when we consider also the inexperience and weakness of the Regular army of the United States, we may expect that such an army corps operating in a sudden and unexpected manner would have a chance to succeed."

The author further says that it would not be necessary to think of occupying in a permanent way any large extent of American territory—which would necessitate too large an army—but rather of occupying the principal sea-coast cities. It would then be a question of a series of disembarkations. "We could," the author adds, "use a plan of campaign of this sort while employing relatively small effective forces, and it would be very difficult for the Americans to oppose it with success. Although their excellent scheme of railroads enables the Americans to concentrate troops in a short time on threatened points of their sea-coast, the invader, by making feints of disembarking first at one point and then at another, could still secure the end sought, by the aid of the fleet. Our corps, after disembarking, could either take the offensive against the enemy's troops *en route* to the rendezvous, or avoid an attack by reëmbarking to sail away and disembark at another point. It should be remarked that Germany is the only great power who could, singly, invade the United States. England, in case of war with that country (United States), could only win success on the sea; she would

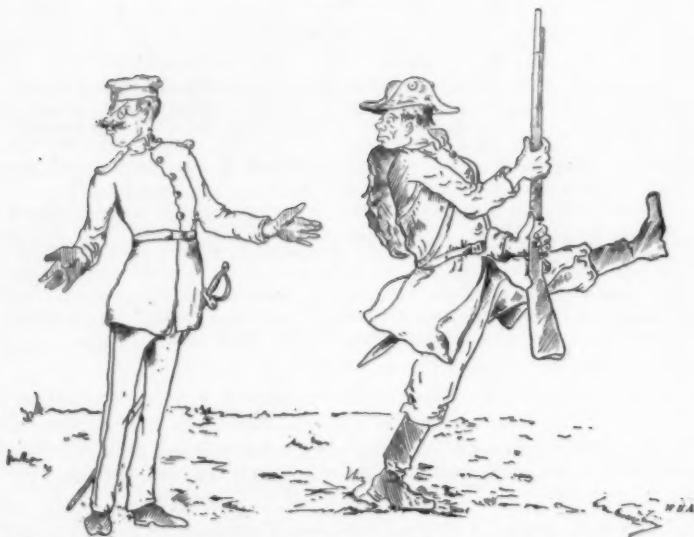
be unable to defend Canada where the Americans could obtain revenge for their defeats on the sea. Finally, no other great power, except Germany, has at her disposal, in her own power, a sufficient fleet of transports to undertake such an enterprise."

ONE VIRTUE OF WAR.—Parents and teachers are noticing and commenting on the fact that children have made wonderful progress in geography in the last three years. War has done this. It has stimulated the desire for knowledge, and the atlas has been frequently consulted to learn the relative positions of places and geographical names involved in battles.

Though this is particularly true with children, it also applies to grown persons. Many, both in school and out, would have had to acknowledge great ignorance of the Philippines, West Indies, the Transvaal and China three years ago, while now they are able to draw tolerably correct maps of these places from memory, and speak familiarly the names of provinces and towns of which they did not know the existence, much less the location, two score months ago.

BOER RELIGION.—An English clergyman domiciled in South Africa has been giving some interesting information about the religion of the Boers—a religion which has in it a large element of imagination bordering upon superstition. They firmly believe that two angels fought for them at Talana Hill; and a Boer clergyman is reported as saying that during the fighting on the Tugela a large body of British troops were just on the point of storming the Boer positions with every probability of success when they suddenly turned to the right and commenced volleying into a ridge not occupied by any Boers, while the Boers in the front position shot them down like sheep until they retreated in the greatest disorder. Some English prisoners were taken, and, on being asked why they had attacked an empty ridge, replied that the ridge was crowded by Boer regiments dressed in pure white. "Another clear case of Divine help," said the Boer clergyman. "The Lord was with us and we were sure of victory." The Boers are very much prejudiced against the Church of England and have a deeply rooted feeling that this church does not teach the Bible. Nevertheless, whenever a Boer does give up the "Netherlands Reformed creed" and become an Episcopalian, he shows all the proverbial zeal of a convert. The English clergyman whom we have already mentioned tells of one Transvaal farmer who joined the English Church from conviction, and "trekked" over fifty miles in his wagon to be confirmed by the bishop of the diocese.

Comment and Criticism.*



“Die Amerikanischen soldaten kennen wie zu kämpfen, ja; aber kennen sie nichts vom parademarsch wie die unzeren.”

(“The American soldiers know how to fight, yes; but they know nothing of the parade march like our soldiers.”)

“Some Army Defects; How to Remedy Them.”

Brigadier-General James H. Wilson, U. S. A.

In reply to your note of October 30th, I beg to say that I have read with very great interest the article, “Some Army Defects; How to Remedy Them,” by Captain M. F. Steele of the Sixth Cavalry. All those of us who have served with troops in the last three years know there is no doubt that the general habit of the American is slouchy and indifferent in reference to his clothing and soldierly bearing. Of course this

* Major William H. Arthur, Surgeon, U. S. Army, sends to the JOURNAL, from Manila, the original sketches from his pencil, and here reproduced, with the following remarks:

“During the Chinese Relief Expedition the United States troops were criticised by soldiers of the Allied Nations for their want of individual “smartness” or military bearing, although admitted by all to be excellent fighters. The accompanying cartoons illustrate these criticisms from another point of view.”

is due solely to the neglect of the officers. The remedy is obvious. But Captain Steele points out one much more serious defect in my judgment, namely, the small pay and poor quality of the non-commissioned officers. In one of my official reports while serving in the Island of Cuba I called special attention to this fact, and urged that the pay of non-commissioned officers should be so increased as to secure a better class of men. In my judgment sergeants-major, quartermaster sergeants, commissary sergeants and first sergeants should receive \$60 a month, duty sergeants \$50, and corporals \$35 or \$40, besides their personal allowances, and special arrangements should be made in the barracks for quartering them in such way as would best promote their comfort and convenience, and at the same time not separate them too far from their squads or companies.

In my judgment also, every regiment in garrison should be made a school wherein the men are graded according to their previous education, and are instructed duly by the officers in all the subjects which they are capable of pursuing. I need not add they should be passed from grade to grade as rapidly as possible, so that when the men return to civil life they will have had their education improved, and their instruction, in all matters pertaining to military affairs, carried to the highest point which they are capable of reaching.

I have often thought, and I see no reason why it is not a correct thought, that enlisted men should be treated very much as cadets are, especially in respect to pay. The greater part should be reserved for such as have no families or family cares, until they leave the service. Most of the recruits are farmer lads or men in corresponding station in life, and few of them ever had so much clean money as they get monthly for their military service. With clothing, provisions and medical attention furnished, they ought to have but little expense from month to month. My observation is, however, that such lads are generally carried away by the example of the older soldiers and waste their money in foolishness.

Brigadier General Thomas M. Anderson, U. S. A.

Answering your request of October 28th, I have the honor to state that I concur in Capt. Steele's diagnosis of army defects. When the Leavenworth school was established for officers, I ventured to suggest to the War Department, that it would be better to organize a school for non-commissioned officers. This gave the impression that I did not favor the Leavenworth experiment.

This assumption was groundless, as I favored both projects. The only criticism I ever made on our post graduate schools was, that they should be conducted on a University system, and not on old collegiate methods. The preference I gave to the new commissioned school was relative merely, considering the requirements of the service at that time. I now agree with Capt. Steele, that one of the most impor-



“O! oui, ces Americains sont assez bons soldats pour se battre, mais ils n'ont point de tenue militaire; absolument point du tout!”

(“Oh! yes, these Americans are good soldiers to fight; but they have no military bearing, absolutely none at all!”)

tant remedies for the shortcomings of the service, is the betterment of our non-commissioned or warrant officers. Since 1861 I have served in seven regiments. In commanding mixed posts and expeditions, I have had parts of sixteen different Regular regiments under my command. In my Philippine campaigns, I commanded at various times thirteen volunteer organizations. This experience has led me to two conclusions: First, as to the importance of the development of certain habits, and secondly, that we should have longer terms of service. Not that I believe that soldiers should be made machines, but that the efficient action depends on mental habit. The habit of sobriety, the habit of promptness, the habit of diligence, the habit of cleanliness, the habit of truthfulness, the habit of observation and attention, the habit of obedience. These habits give a good working rule of action. Their development requires time and discipline. The most saintly man gets burned if he falls in the fire, and the soldier who, even thoughtlessly, violates regulations, must pay the penalty.

"Will gravitation cease when you pass by?"

Every one recognizes the abstract truth of this proposition, yet it takes years to develop a habit of instinctive obedience.

It is not so important now, to have a central non-commissioned school as it was before we had entire regiments serving together at a post, yet I would like to see the experiment tried. Permit another suggestion in this connection. Laundress quarters are generally voted a nuisance, yet many excellent old soldiers cannot be retained in service, even by an increase of pay, unless after long service they can hope for quarters for their families.

I might go on with suggestions "*in secula seculorum*," yet I will venture to submit only one more. A Brigade commander in the Regular Division A. P. used to say that regulations were not made for Brigadier Generals. Before the end of his career, he found to his sorrow that he was mistaken. A Quartermaster-General, within the memory of men still living, ordered the sale of nearly all of our army wagons, ambulances, horses and mules. How much we needed these auxiliaries when the late war broke out, need not be told. The apparent inference seems to be, that we need material as well as men, and regulations which will regulate.

State Soldiers Home, Erie Co., Ohio.

Brigadier General Charles King, U. S. V.
(late comdg. 1st Brig. 1st Div., 8th Corps.)

I have read Major Steele's paper with deep interest. He writes whereof he knows. I differ with the foreign critics who say our men are not soldiers. On duty in campaign and off duty in city streets or saloons, the outward and visible signs are often lacking, but, at the first shot, our linesman, Regular or Volunteer, braces up instantly. In his hours of ease, the average Yankee soldier may well be the horror of the



"American soldiers fight like Helsinki: but got no stýlskil!"

European, but in battle he's a terror to the foe, and fighting, after all, is the main object of his training. If, therefore, with all his loose-jointed, independent, devil-may-care swagger out of ranks, he proves such a splendid fellow on the fighting line, have we not reason to be thankful that the best fed, best paid, best clothed "enlisted man" on the face of the globe, and the one most encouraged by press and public to not a little insubordination toward his officers, should so admirably accomplish the end in view in spite of adverse influences over which his superiors have no control?

The fact of the matter is, that since the Mexican War, the nature of our campaigning and the "levelling tendencies" of public opinion have both been well-nigh destructive of the old time, old world observance of "military courtesies." In the trenches, rifle-pits, "pup" tents and thick woods of the great Civil War; in the dress-alike, live-alike, fight-alike years of our Indian service; in the bamboo thickets and muddy trails of Luzon and the paddy fields of China, the salute and stand attention business was gradually dropped. It is the hardest thing to teach the average American anyhow—this rendering of honors to anybody. He regards it, erroneously, as an admission of personal inferiority, and editors, reporters and news-gatherers who see it, denounce the system as "un-American," and the officers who strive to maintain it as martinets.

Another thing. Abroad the civilian is not permitted to wear any portion of the uniform of the army. In America no part of it is sacred. It is only necessary to adopt a new cap, coat or overcoat for the officer of our army to secure its immediate adoption by all manner of people throughout the length and breadth of the land. The officer's overcoat is in frequent use by men who never wore a sword. A big band marched under my windows in a recent parade, every mother's son of the fifty wearing the shoulder-straps of a second lieutenant. How are our soldiers to differentiate between the officer and the bass drummer?

Yet, in spite of obstacles of every and any kind, the observance of military courtesies should be firmly enforced, for even old Regulars will grow "slouchy" without it. During the Sioux campaign of 1876 when, officers and men alike, the Fifth Cavalry was in rags and more than half starved, by tacit consent the wearied troopers were excused from rising to salute their officers, and the salute itself soon disappeared. Then it took not a little sharp work to restore it when the command got back to garrison—to uniform and full stomachs.

In San Francisco in 1898, the newly recruited men, and indeed not a few of the old Regulars, resorted to comical school-boy excuses to cover their lapses in this line. The men of one regiment said they saluted their own officers but didn't suppose they had to salute others. The men of another said they didn't suppose they had to salute mounted officers. Many Regulars would simply fail to see officers of the Volunteers. At Manila it was for a time even worse. They were just getting



"Ho! yawss, your chaps are stunnin' beggars for fightin'; but they're beastly rotten on parade you know."

to be quite precise about it when the insurrection broke out. Then came long days and nights in the bamboo, the trenches, rifle-pits and rice swamps and away went military courtesies and buttoned coats. Then, if an inch be given, somebody is sure to take a mile. My command occupied a line in front of San Pedro Macati much exposed to the fire of insurgent sharpshooters, and it being at the extreme front, I invariably motioned "keep down" when men showed a disposition to spring up to salute. One day General Lawton, with a number of staff officers, was standing in front of brigade headquarters. A carriage drove out from Manila, a huge soldier, cigar in mouth and blouse flying wide open, sprawled out, strode up to the party, and without sign of salute, demanded to know where he could find his regiment. Called to account, he promptly declared that his brigade commander had ordered him not to salute out there at the front, and was remanded to the care of a sergeant of the old school who proceeded to teach him the error of his ways.

What Major Steele says about the modern edition of the so-called non-commissioned officer is true. He is miserably underpaid as compared with the private and his chevron fails to carry with it a tithe of the dignity and responsibility attaching to a like office in the English and Continental services. Nowhere, even on the drill ground of the Guards of England, have I seen sergeants accorded such deference and respect by all grades as in Republican Switzerland; but we require ours to eat, sleep and mingle with the men, and we give them little better pay or consideration. Even, as Steele says, if it had to be taken from the increased pay of the private, I favor paying corporals twice and sergeants four times the amount given the recruit, and the sergeants, at least, should have a separate mess. Something should certainly be devised to make it an object for our non-commissioned officers to reenlist time and again. It is only those who have had years of service who carry weight and influence with the rank and file.

In the field, under conditions described, I believe it better to dispense "by order" with the regulation requiring men to rise and salute every time an officer passes, but on the other hand, always to enforce that which requires the salute when addressing or being addressed by an officer. In garrison, cantonment or city, however, officers of every grade should firmly yet quietly exact the salute of the soldier and be most precise and scrupulous in returning it. In the field, under tropic suns, let the coat go hang and the blessed flannel shirt fly open at the will of the wearer, but the instant men are under even nipa roof again, button to the throat. As to the campaign hat, it is infinitely better for field purposes night and day than any other headgear yet devised, except when worn according to regulation. Then it defeats its own purpose.

And finally, everything depends on the officer, from the post commander down. Let him set the pace in bearing, dress and manner.

Let him be "smart" and soldierly, and the man will follow in spite of himself. Let him be firm, yet courteous in tone, never hectoring, domineering, and above all, never querulous, snarling or sarcastic to his men, and little by little they grow to swear by him, and, once won, the faith and affection of our Yankee Tommy make a treasure beyond price.



"We needn't worry."

Reviews.

General McClellan.*

THIS book is, in its tone and in its assembling of historical facts, an unexpected and a remarkable addition to the Great Commander Series published by the Appletons.

Unfortunately a preface is issued with the book which gives an erroneous impression. When this was pointed out to the publishers it was too late to correct it or to suppress it. The assertion that General Porter, on his dying bed, had approved of what the author had said in regard to General McClellan's being, at all times and on all occasions, unable to conduct a battle is not in accordance with the facts. General Porter never read the manuscript with the view to express his opinion on the correctness of General Michie's deductions, if he was at any time well enough to read it after it was submitted to him.

Michie was an able man—a generous, whole-souled man—an enthusiast when engaged in any work—a man and an author so well beloved and respected—universally respected—that that which he writes must carry conviction, and his estimate of McClellan will be accepted as final.

It is therefore not the part of the reviewer to endeavor to give a personal opinion of McClellan's merits. All respect and love his personality—all know that he failed. The only question before us is: Why did he disappoint his admirers?

The author shows that the campaign in West Virginia was not won by McClellan; he claims that his appointment as Commander-in-chief was founded upon a false presentation of the operations of that campaign, and claims that the General exhibited, on the occasion of his encounter with Pegram and others, the same incapacity exhibited on all subsequent occasions when the battles were lost, it is claimed, through the inaction of the Commanding General. He plainly states that McClellan withdrew his troops at a critical moment and that Rosecrans won the battle.

But McClellan was not made Commander-in-chief because he was said to have won the battle of Rich Mountain. General Michie had not in his possession the facts in regard to the estimate in which McClellan was held by men who were in a position to advise the President in the matter of the appointment of a successor to General Scott.

Why, then, did the army rejoice at the selection of McClellan?

In the early 50's there were assembled in the officers' mess at West Point a number of officers, all of whom had served in the Mexican War, and most of whom were at that time instructors in various capacities at the Military Academy. A clergyman of the Episcopal church was in the habit of visiting an

* *General McClellan.* By General Peter S. Michie. New York: D. Appleton and Company.

officer at West Point, and when there was treated as a member of the officers' mess. He was present at this meeting and told the writer the following :

"On this occasion the question came up, Who will be the Commander-in-chief after the retirement of General Scott? and I believe it was arranged that all present should give their answer to this question, without regard to likes or dislikes, by writing the name of his candidate upon a piece of paper and depositing the same in the ballot-box. When the ballots were opened it was found that those present had unanimously selected George B. McClellan.

Inasmuch as there were present at that time George H. Thomas, Fitz-John Porter, Delos B. Sacket, John M. Jones, Cadmus Wilcox, Milton Cogswell, and many others whose names were prominent in 1861 as general officers holding high commands, it is certain that some of them and some or many others who were aware of this feeling in the army in regard to McClellan, as advisers to the President of the United States, were not guided solely by the reports of McClellan's recent success in West Virginia, but represented the general opinion of the army concerning McClellan's abilities and advised in accordance with that general opinion.

As an historian, General Michie has to record on pages 90 and 91, that at the moment of victory General McClellan allowed Garnett to escape and did not take part in the movement of Rosecrans.*

Any writer of moderate ability can compile a history of McClellan's services to his country before 1862 and subsequent to his return from the army, but few men could write with more force and with more military discrimination concerning his services from 1861 to 1863 than General Michie.

The author gives the history of the birth of the Army of the Potomac and gives McClellan full credit for the creation of that world renowned body of American troops, destined to save the Capitol, to capture Lee, and to secure the reconstruction of the Union. This narrative makes it manifest that the breach between McClellan and the Administration was fully and finally consummated at the meeting held in the Executive Office after McClellan's sickness (p. 80 to p. 84), when General McDowell and General Franklin were forced to appear as personal advisers of the President. Michie treats this subject with vigor and closes with the statement : "from this time on, the lines were clearly drawn between those who defended and those who opposed him."

Beginning with the breach with General Scott, General McClellan managed to excite the hostility of nearly every officer of the Government who was in the position to assist and encourage him. General Michie shows clearly how he accomplished this.

The story is a sad one and must be read with respect for both sides in this

* The success of McClellan's West Virginia campaign was unduly magnified by the newspaper press throughout the North, and it was the immediate cause of his being called to Washington to receive the substantial promotion that his talents as an army commander seemed to justify. A careful analysis of its main incidents and their influence upon his mental processes is, however, exceedingly instructive in giving a just estimate of his characteristic qualities of leadership which, being peculiarly his own, must ever be in evidence throughout his whole career.

This apprehensive anxiety on the eve of battle that betrayed his lack of aggressiveness at the supreme moment is also exhibited when, hearing the sound of Rosecrans' guns at Rich Mountain, and interpreting the actions of the enemy unfavorably, he withdrew his command at the time when a bold leader would have led his troops to the assault. And thus it happened that he was never personally tested in battle as a commander in the whole of the campaign, since the only fighting was done by Rosecrans' command of nineteen hundred men at the top of Rich Mountain, and by Benham's eighteen hundred in pursuit of Garnett on the Leadville road. (MICHE.)

untimely contest. The Army of the Potomac was just learning what it meant to be made to fail and to meet disaster through this want of accord between its commander and the Government.

To have created an army capable of enduring patiently the mismanagement, slaughter and abuse which it was the misfortune of the Army of the Potomac to suffer and to endure, was enough to stamp McClellan an efficient and far-seeing organizer. But the Administration which was opposed to him, carried the war to a successful conclusion. McClellan failed utterly—absolutely—although twice given the opportunity to exhibit the necessary sagacity and enterprise to vindicate his policy, and history will always record his failure and the success of Lincoln.

The military reader might well read this book to learn how to avoid the defeat which is certain to follow over-caution in war. He will learn that it is better to determine the strength of your enemy by aggressive movement and continued enterprise, and even dash—cost what it may,—than to await what may be conceived to be the certainty of success by too protracted preparation.

When the writer once wrote that General McClellan did not give to the wishes of the President and the demands of the people that consideration which the state of the Finance and the country called for, General James B. Fry addressed a note to him asking what he meant by the statement. General Michie has fully answered this question. He shows how open rupture was only avoided by the action of the President, who not only showed patience after he lost complete confidence, but actually filled the breach himself, deeming it to be unwise to remove a Commanding General so beloved by his troops, and who had indeed, for the organization of armies and for defending Washington, deserved a grateful recognition of his services.

The General Commanding won the confidence of the Army of the Potomac through much more than his personal magnetism. The men saw that the gradual growth was the result of the efforts of a master of military science, and through a determination to carry out well conceived plans of organization. They could not but see that their leader was not only fully capable of affording a complete and lasting defense to the Capitol, but was at the same time training and directing the divisions and brigades under many superior military minds selected by himself. Whenever he appeared and wherever he directed his soldiers he was simply made to believe that he was their idol, and he deserved all of this.

Able artillery and infantry and cavalry commanders, forced from all with whom they came in contact, that respect which a thorough knowledge of their profession was sure to inspire, and the cry was, "No more Bull Runs, no more errors through ignorance—only lead us to the test."

General Michie's treatment of the conduct of the War under the head of "Plans of Campaign," is one of the most masterful of the many attempts made to unravel the mysteries of the Fall of 1861 and the Winter of 1862. It would be well at this period to be even more outspoken. Forty years after the battle of Bull Run, those who passed through the many campaigns of the Army of the Potomac, know that the main difficulty was to be found in the opposition of those who believed that General McClellan's sentiments were those he expressed in his Harrison Landing letter, and that he was not in sympathy with the Republican Party, and not anxious to give this party the strength which it would have were the military measures made sufficiently strong to insure a

complete overpowering of the South through a vigorous and direct military movement. It was rumored, and with some reason, that about the General Headquarters the Administration was not spoken of with respect. Add this to the want of confidence in the General Commanding as an aggressive army commander, and the condition of affairs in Washington may be easily understood.

But writers upon the condition of the public mind at this period of inaction, have generally neglected to refer to the most important force which was relentlessly promoting dissatisfaction with the delay in aggressive movement. It was the powerful home influence of those who were serving in the army out of purely patriotic impulse, who had sacrificed everything to aid in defeating the Rebels; who tolerated no discussion of methods and measures—involving delay—who believed that *one* Union man was more than equal to one secessionist; who asked to be led to test this question. Outspoken generals and colonels and officers of all grades, wrote to their homes that they loved McClellan, but that they wished to bring the whole question to a test and to *move*.

Some charged that all of the old army were in sentiment, wedded to the South, owing to a feeling of respect and affection for their old comrades, and were not over-anxious to meet them on the battle-field.

The respect they had for their adversaries, consequent upon their knowledge of the character of the leading Rebel generals, made many loyal and brave Union officers cautious, and caused them to check the enthusiasm of the raw patriot. This again was misinterpreted.

Chap. VII. "Inactivity of the Army of the Potomac" is full of interesting history. It is surprising that General Michie, who had not been with the Headquarters of the army, could so lucidly depict the relations between the President, the Cabinet, McClellan and the ablest of his division commanders.

This discussion leads the reader to the solution of the oft repeated question—How and why was McDowell retained at Washington with his command when McClellan was fairly on his way to the Peninsula and in opposition to McClellan's repeated call for even more troops to accompany him to Richmond?

Wise or unwise—just or unjust—the consensus of opinion with those who had the right to determine what should be done to protect the Capitol and to defeat the Rebel army, was that McClellan could not accomplish that which he had set out to do, inasmuch as he had wasted time in preparation, overestimated the strength of his adversary and drained the Treasury. It was easy to show that the General had not, in the opinion of many, left sufficient troops to defend Washington, it was easy to retain near the Government the general who would, in the event of a failure on the part of McClellan, be the man to organize an onward movement by the way of Frederick and it was done; and McDowell was not to blame for the order. General Michie's book will be a godsend to McDowell's friends. His is a (Chap. VII) masterful narrative. Had the story been put forth in the sixties, many able and efficient officers would have freely changed their attitude towards that able soldier.

With the Army of the Potomac devoted to McClellan, and believing in him, the relief of McDowell was a breach of faith * * * and bitter were the denunciations of Stanton and the Cabinet and of McDowell.

ALEX. S. WEBB,
Bt. Major-General (late) U. S. A.

The Spanish-American War.*

This work may be properly considered one of the most valuable of the contributions to the written history of the war with Spain. As Secretary of War, the author has had at his disposal the broadest field of knowledge and observation of events, particularly as relating to the organization, equipment and movements of the military forces, as well as the administration and interior workings of the War Department. It is thoroughly readable.

The author states in the preface that his descriptions of the operations in the field are based upon official documents, conversation with participants and letters from officers high in authority received since the war, a personal visit to the battle-field of San Juan, having made that particular field of operations somewhat familiar to him.

After briefly reviewing the Cuban situation early in 1898, the second and third chapters are devoted to unpreparedness and preparations for war. A high tribute is paid to the splendid spectacle of the country's response to the call to arms, which gave to the whole world a picture of patriotic earnestness such as has seldom thrilled the hearts of the people of any nation. When 125,000 men were called, it is safe to say that a million offered themselves.

The author dwells on the fact that of the first appropriation of \$50,000,000—"for National Defense" in anticipation of war, no part was available for *offensive* purposes, not even for offensive preparation, and while measures for more effective coast defense were permissible and were pushed forward, as carrying out only more actively measures inaugurated several years previous, no disturbance of the status of peace could be made before the declaration of war. Consequently, while, during the few weeks immediately preceding the outbreak of hostilities, every arsenal in the country and every private establishment capable of turning out guns, carriages, powder, ammunition, etc., was working up to full capacity night and day for coast defense, the War Department could not purchase or contract for any of the material so soon to be needed for the new army. There were no stocks of reserve supplies on hand, and no increase could be made, except for the everyday needs of the army on a peace basis, so that, under the President's interpretation of the term "national defense" there could be added to the ordinary supply, nothing in the way of equipment, clothing, tentage, harness, commissary stores, medical and hospital supplies, camp furniture, etc. "Dilatory and grudging legislation had borne its fruit."

There being no law forbidding, all of the Regular army of 25 regiments of infantry and 10 of cavalry which could be spared from its stations, then scattered all over the country, was mobilized, and on April 15th ordered to different points in the Southern States. Within a few days after the enactment of the acts of April 22d and 26th, 1898, increasing the military forces, the War Department was engaged in the simultaneous preparation of three large armies for operation in foreign countries separated from the United States by distances ranging from 100 to 7000 miles, and, from each other, by half the circumference of the earth. All of the details of organization of the 223,235 volunteers, as well as the increase in the Regular army to about 61,000, are interestingly dealt with. In referring to the transportation to the southern camps of mobilization, the author says:

"Our soldiers did not travel during the war with Spain as they did during

**The Spanish-American War.* By R. A. Alger, Secretary of War, March 5th, 1897-August 21st, 1899. Harper and Brothers.

the Civil War. In all contracts with the railroads, it was expressly stipulated that in the day coaches, each soldier should have an entire seat for himself and his equipment, and for over 24 hours of travel, the troops should occupy sleeping cars—Pullman's or tourists'—three men to a section. Few veterans of the Civil War can recall having travelled, during the sixties, in any but box, cattle or flat cars. Even the horses and mules, in the war with Spain, were nearly all shipped in patent palace stock cars."

With empty military storehouses, the supply departments set to work equipping practically 250,000 men. Many of the articles required were of special manufacture, not to be had in open market. Congress had repeatedly denied requests to equip the arsenals with special reserve machinery for their manufacture, to meet an emergency, so that specially designed apparatus for the arsenals had to be manufactured and installed, before work could be commenced on these articles of equipment. Notwithstanding the fact that there were but 57 officers of the Quartermaster's Department, which requires specialized knowledge and experience, by August there had been manufactured or purchased and issued 546,338 blankets, 390,775 blouses, 523,203 trousers, 476,705 campaign hats, 153,167 canvas field uniforms, 782,303 shoes, 588,800 leggins, 622,211 flannel shirts, 1,257,002 undershirts, 1,210,682 drawers, 38,963 axes, 4888 trumpets, 34,344 camp kettles, 58,662 mess pans, 64,980 various kinds of tents, 372,379 shelter tent halves, 16,618 horses, 20,182 mules, 5179 wagons, 28,012 sets of signal harness, and other articles of every kind in like proportion.

"The arrival of the volunteers from their several states at the camps of instruction quickly demonstrated the fact that so far as equipment was concerned these militiamen were little better than recruits. Not a single regiment was fully ready for the field. They were deficient in regimental equipment of every kind. No less than 100,000 Springfield rifles and carbines were issued to volunteers who had been supposed to be well armed. Very many arrived in camps without uniforms, accoutrements, rifles or anything, in fact, necessary for active service, except that enthusiasm which is the invariable characteristic of the American volunteer."

The author states that on the first of April the output of the Rock Island arsenal amounted to seventy sets of infantry equipment per diem. When the protocol was signed, on the 12th of August, it was turning out daily 8000 complete infantry equipments and 250 cavalry equipments. The daily output of the Springfield armory was increased, during the same period, from 120 to 363 Krag-Jorgensen rifles.

The author commences the chapter on "Appointments and Importunities" as follows:—"The life of the Secretary of War was not a happy one, in those days of active military operations. With over a quarter of a million men in the army, it seemed as if there was hardly a family in the United States that did not have a friend or relative in the service and that for one reason or another, some member of each of these found it necessary to write or to personally visit the War Office," and then states that he was visited by not less than one hundred persons daily, so that almost the entire day was given up to personal hearings, leaving the consideration of administrative work for the greater part of nights and Sundays. There were so many more applicants than commissions in the army to be filled, that for every man appointed, hundreds were necessarily disappointed. "The successful applicants of course, withdrew from the uproar of solicitation, but the less fortunate aspirant and his many friends, political and otherwise, condemned the system of appointments and the Secretary of War." After referring to the misunderstanding and misrepresentation

as to methods of making appointments for the volunteer army, the author says: "I doubt whether I was more vilified and slandered in any other connection. Yet there were not a dozen commissions issued during the Spanish-American War in which I had any personal interest. The appointments were made by the Governors of the States and by the President." Nearly one-fifth of the officers of the Regular army were given volunteer commissions creating a scarcity of regimental officers in the expanded Regular service, which greatly embarrassed that army. The system and data relating to appointments is given at length. The author says:—"The appointment of Major-General Shafter to command in what proved to be the greatest expedition and land battles of the war, was made upon the recommendation of the Major-General commanding the army and at his request. The choice, as events proved, was an excellent one." The surgeons and assistant surgeons of volunteer regiments were appointed by the Governors of States. Only 95 surgeons were appointed from civil life, which with 940 contract surgeons, were made upon the recommendation of the Surgeon-General, after assurance of the candidate's professional qualifications. "Not a volunteer officer commissioned by the President was court-martialed during the war. Of the 87 paymasters commissioned, 86 were appointed from civil life. Not a dollar was defaulted and all accounts have been closed. In all the expenditures of every kind, aggregating upwards of \$200,000,000—no charge has been made of jobs or favoritism." The War Investigation Commission, known as the Dodge Commission, after the examination of many camps and numerous witnesses, stated that "the young civilians who received staff and other appointments, in the main discharged their duties in a highly commendable manner." The author refers to the clamor for discharge from the service, as beginning when the army had hardly been organized, on the part of friends and relatives of soldiers, who were naturally frightened at the report of every battle or death from disease, the requests being oftener from families or sweet-hearts than from soldiers themselves. The chapter finishes with:—"The persistent clamor of the office-seeker, the appeal of those who wished to leave the service, the demands of the sea-coast cities and towns for immediate and impossible protection and the savage criticism of the military administration, plans of campaign and battle, with the apparently endless list of shortcomings and grievances, have left an ineffaceable impress of time and experience upon the weary shoulders of those in authority.

One rememberer's Byron's couplet:

"A man must serve his time to every trade
Save censure—critics all are ready made."

There follows a chapter on "Plans of Campaign" of considerable interest, as giving the causes which moved the administration in its direction of the military and naval forces and the changes of plan necessitated by unexpected circumstances arising. Free criticism is indulged in by the author on plans proposed by the Major General commanding the army.

The following 240 pages are devoted to the operations in Cuba, commencing with an account of the preparation and embarkation of Shafter's army at Tampa and concluding with a *résumé* of the Santiago campaign, including maps, official correspondence and cablegrams, with tabulations of forces, etc., covering much of the ground gone over by other writers on the subject, but containing some new matter and conditions from the author's viewpoint.

Mention is made of the anxiety of the President and members of the Cabi-

net while the fighting was in progress and during the negotiations for surrender of the Spanish forces. While complimenting the part taken by the navy, the author discusses at length what he considers to have been the lack of coöperation by the naval forces, as the result of the attitude of Admiral Sampson. In closing this subject, he says:—"It is difficult to account for Admiral Sampson's seeming attitude towards the army during the operations before Santiago, as well as to excuse him for his contradictory statements, subsequently made, in his official report. After the third of July, the Admiral's conduct may be due to the keen disappointment resulting from his non-participation in the engagement with Cervera's squadron."

A chapter is devoted to the "Round Robin" incident and the sickness prevailing in the forces around Santiago, after the fall of that place, with the communications between the War Department and Shafter. The writer points out that before the receipt on August 4th of the so-called "Round Robin" as early as June 13th and repeated on July 23d, in cable dispatches, the War Department had made known its intention to Shafter to bring the troops back to the United States and that on July 28th he had cabled Shafter, announcing the selection of Montauk Point for the recuperation of his command, as soon as it could be moved. Following the text of the "Round Robin," as cabled and a coincident dispatch from Shafter, which moderated the expressions in the "Round Robin," describing the situation, the author quotes an endorsement of General Lawton on that document, deploring the mandatory language used as impolitic and unnecessary, and expressing the opinion that much of the fatal illness is due to homesickness and other depressing influences. The entire army was ordered back before the receipt of the "Round Robin," although, as a matter of public policy, that circumstance was not made public; so it was generally believed that the "Round Robin" was responsible for the return of the 5th Corps and the selection of Montauk Point, when, as a matter of fact, it had nothing to do with either. While making no criticism on the "Round Robin" itself, as the outcome of an invitation to a conference by Gen. Shafter to his officers, the author criticises severely the agencies through which these alarming utterances were given to the world, viz., through the Associated Press correspondent at Santiago on the day it was cabled to the War Department. "The publication of the 'Round Robin' at that time was one of the most unfortunate and regrettable incidents of the war. The information this startling paper made known not only brought terror and anguish to half the communities and neighborhoods in the land, but it returned to Cuba in due time, to spread demoralization among our troops. It did more than this,—it threatened, and might have accomplished even, the interruption of the peace negotiations between the United States and Spain." And further:—"It would be impossible to exaggerate the mischievous and wicked effects of the 'Round Robin'!" It afflicted the country with a plague of anguish and apprehension. There are martyrs in all wars, but the most piteous of these are the silent, helpless, heart-broken ones, who stay at home to weep and pray and wait,—the mother, the sister, wife and sweetheart. To their natural suspense and suffering, these publications added the pang of imaginary terrors. They had endured, through sympathy, the battle-field, the wasting hardships of the camp, the campaign in the tropics, the fever-stricken trench. They might at least have been spared this wanton torture, this impalpable and formless, but overwhelming blow." The author takes up the ques-

tion of the actual condition of the troops in Cuba and the work of the transport, supply and medical departments and makes comparisons with parallel circumstances during the war of secession.

The author reviews the difficulties of transport and congestion of supplies at Tampa, which caused confusion in those departments in the Shafter expedition which the military necessities of the campaign allowed no time to remedy.

The aggregate strength of the 5th Corps present for duty, equipped, June 30th, was 18,234. The author says:—"The mortality of the entire 5th Corps while in Cuba was but 659, of which 243 were killed in battle or died of wounds. The deaths from disease 416 (including 46 from yellow fever) are remarkably small, when it is understood that the army was subjected to a tropical fever epidemic."

He treats in detail of the difficulties in landing and forwarding of troops and supplies, and quotes the testimony of General Ludlow before the War Investigation Commission as follows:—"The campaign was a race between the physical vigor of the men and the Cuban malarial fever that lay in wait for them, and if General Shafter had waited to do all these things (constructing roads, docks, etc.), the army would have been on its back before the surrender instead of after, and we could not have taken Santiago as we did." General Shafter had been selected as a "rough and ready fighter," and a general less aggressive would have failed by detaining his army in Cuba for preparations. Neither the necessities nor conditions permitted a campaign laid down by tactics and military precepts. The problems were new. The Regular army was assembled together for the first time since 1865. New weapons, resulting in new tactics, were quantities not determinable in advance of experience. Throughout the entire campaign not a complaint was received by the War Department from any officer or man of the Regular army. "General Lawton and General Wood, both good types of the American Regular soldier, have testified that they have endured, on more occasions than one, greater hardships in Indian campaigns than the Santiago campaign entailed." In 23 days the Spanish fleet had been driven out of Santiago harbor, after several severe engagements with an enemy greatly superior in force, on its own ground, well intrenched; 24,000 prisoners, over 1,000,000 rations and a large part of Cuban territory captured, without the loss of a prisoner, gun or flag; while, besides our own forces, in spite of difficult communications, there were fed 5000 Cubans and 20,000 helpless men, women and children thrust into our keeping by the fortunes of war. The author says:

"Eighty nine newspaper correspondents accompanied General Shafter's expedition, or about six to a regiment of 1000 men. Not five per cent. of these representatives of the press had ever seen a battle, and very few, if any, were experienced war correspondents. The hardships of war were entirely new to them, and a large portion of the reports in the daily press should have been read at the time with this understanding. Many of the accounts criticising the conduct of that campaign were absolutely without foundation in fact."

A short chapter is devoted to the expedition to Puerto Rico.

The Philippine campaign, our relations with Aguinaldo and the Tagalog rebellion are treated in three chapters, commencing with the first notification to Admiral Dewey at Hong-Kong, soon after the destruction of the *Maine*, as to his duties in the event of war and ending August 1st, 1899, when the author retired from office as Secretary of War. In addition to the consideration of the Philippine operations from a political and military standpoint, the author emphasizes the efficiency, under hard service conditions, of the American forces.

In speaking of the capture of Manila, he says that "the landing was made during the season of the highest temperature and the clothing and supply conditions were about the same as at Santiago." That once, when the surf was unusually heavy, the troops ashore were without food 24 hours. The watchful vigil of the flooded trenches resulted in the destruction of many pairs of shoes and 300 men of General Merritt's army marched into Manila barefoot. "Conceive the remarks of the yellow press, had this incident, so common in war, occurred at Santiago, instead of at Manila! Yet there were no complaints from those sturdy heroes."

A lengthy chapter follows, headed "The Miles-Eagan Controversy," containing the author's views and position on the subject, with numerous quotations from testimony taken before the War Investigation Commission and from its report. He says in closing:—"Had I consciously permitted a ration of food which I believed to be bad, to be served to a soldier on duty in the field under the flag of this republic, I should not dare to hope or ask to be forgiven."

One of the most interesting chapters in this entire book of 466 pages, is that on "Camps and Disease." It is maintained that no national camp occupied during the summer of 1898, was in itself unhealthy, and that the percentage of sickness was smaller than among our troops in 1861, the British forces in South Africa, and relatively less than in any war of modern times. Yet much was preventable, being due to camp pollution, the cause being ignorance or neglect on the part of officers, coupled with inexperience on the part of the men. The precautions taken by the War Department are shown. The Chickamauga camp site had been one of our camp sites for a much larger army, for a much longer period and with much less supplies, during the Civil War. An account of the investigation of the conditions at this camp is given, of a board of surgeons, one from the Regular army and two from the volunteer. Among other things, the report shows that 90 per cent. of the volunteer regiments brought typhoid fever to Camp Thomas with them. There came under the observation of the Typhoid-Fever Board 44,803 men of the 1st and 3d Army Corps at Chickamauga, among which there had developed 4068 cases of recognized typhoid fever and 5892 cases, regarded as typhoid from their subsequent history. Of these 9960 cases, there were 713 deaths, a rate lower than the death rates from this disease in the large hospitals in Boston, Philadelphia, Baltimore and New York. The author quotes at length a speech of General Boynton, in permanent charge of Chickamauga Park, delivered at a reunion of Civil War veterans, in September, 1900, in which the speaker draws comparisons in detail, between conditions during the Civil War and the war with Spain, showing the great superiority during the latter in quantity and quality of supplies and stores, hospital accommodations and treatment, transportation, etc. Among other things he says:—

"To sum up this subject, the War Department used 644 standard Pullmans, 1501 tourist Pullmans and 3285 first class day coaches—all provided with ice water by the barrel, for the transportation of the Camp Thomas troops alone. And the yellow journals insisted that the Department was crowding the soldiers into cattle cars and insisted upon it until the country believed it. You remember where you bivouacked in the Dyer Field, at the close of the first day's fight, after twenty-seven hours' marching and fighting without a meal; bivouacked without fires when a white frost was settling down and with only a few crack-ers and scraps of bacon and pork, which could not be cooked because the enemy's lines were too close to admit of fires. Well, in the days which tried the

souls of the sensational journals in the Spanish War, just back of where you bivouacked, the Commissary department had a bakery, with a capacity of 66,000 eighteen-ounce loaves, and every soldier and civilian employé in that army got a loaf of it every day, if he wanted it, and it was as good bread as I ever care to see on my own table."

He goes on to say that fresh meat was issued seven days out of ten, as good as ever came in refrigerator cars to the cities and towns of the North, every quarter carrying a tag of Government inspection, 5,100,000 pounds issued without the loss of a pound, except where it fell into the hands of regiments whose men did not know how to care for it in hot weather, nor their officers how to tell them. He speaks of the bacon as the same as bought in first-class family groceries, and of the high quality and quantities of fresh vegetables. "The War Department was keeping house with 274,000 boarders." He refers to the hospitals as superior to any of the Civil War, overcrowded at times and at times a lack of nurses. "And everything did not move as smoothly as a church fair, but no lack of supplies or attention beyond what was inseparable from the rapid organization of a great camp." He notes that thirteen regiments and ten batteries of Regulars drank the water, as well as the large park force, without a single case of fever developing amongst them. The Regulars never lost a man from any camp disease whatever. "When the troops moved from Camp Thomas, there were medical stores enough left behind to fit out fifty regiments with full field supplies for active campaigning." After stating that the work of the War Department and the Staff Corps, in promptly mobilizing a quarter of a million men, was creditable in the highest degree, General Boynton goes on to say:—

"Of course, there were lacks at times. Every true soldier knows that these are inseparable from war conditions. But the quartermaster's and commissary departments could not furnish trundle-beds and Mother Winslow's soothing syrup on the spur of the moment, and so it was impossible to check the squalling of the few who imagined they were going into a summer encampment and found themselves in war camps instead. And the sensational journals became the willing organs of all this baby business. But the country did not then understand that these attacks had political origin, and as it was not deemed expedient to make direct attacks on a War President, the scheme was devised of striking him by attempting to discredit his War Department and the management of the war."

General Boynton further said:—

"The death-rate at Camp Thomas is the best test of all the sensational stories with which the country was deceived, enraged and driven well-nigh crazy. The journals attacking the War Department told you that the soldiers there died off like sheep. So you will expect to hear rather startling figures,—and you will. The muster-out rolls, as you know, show every death and its cause. I have them all for that army. As thus shown, the death-rate at Camp Thomas, from the arrival to the departure of the troops, was a trifle less than one-half of one per cent. You will be interested to know how this sensation was worked up in one regiment—the 8th New York. The Governor of that State, with patriotic purpose, stirred by the stories of neglect, epidemic and malignant disease, sent the surgeon-general of the State to examine and report. He arrived in the evening. That night the word ran around the camp: 'All who want to go home, report at sick-call in the morning.' When the call was sounded, 400 responded and lined up before this astonished surgeon-general. Besides this, they brought a man on a cot, into whose eyes they had injected belladonna to make him stare and told the surgeon that he was paralyzed and a specimen of hospital inattention and want of accommodation, since he had been left out on the ground under the trees the night before because of a crowded hospital."

Camp Wikoff, at Montauk Point, is then taken up. The fact is stated that contracts for boring wells, piping water, lumber for tent floors and hospital and other supplies, were let on August 2d. The first alarming dispatch from Shafter, announcing the necessity of immediate return to avoid spread of yellow fever, was received on the 3d, whereupon immediately on that day was issued the order for the return of the forces. The "Round Robin" was received on the 4th. General Youug arrived at Montauk Point on the 5th to take command of the detention and convalescent camp; work was pushed forward, and before a soldier from Cuba arrived 10,000 tents had been erected and supplies of all kinds were on the ground. On the 15th General Wheeler landed from Cuba, was directed to report in Washington, and at once returned to Montauk to "take command of the troops, and without considering expense have the men taken care of." Then follows the account, in detail, of the vast amount of work so speedily done, and of the special orders directing issues of commissary and hospital supplies and the great quantity supplied. A tabulation of quartermaster stores, including new articles of uniform, underwear, tents, blankets, etc., shows 340,247 articles. The author asks, in view of these provisions for the reception of the returning troops, why there were charges of gross negligence in providing for their care and comfort? and states that the widespread publication of the "Round Robin" had

"put the people of the United States in a frame of mind to believe anything adverse, with respect to the conditions and proper treatment of the soldiers. It was not then known that General Shafter's telegram, preceding the 'Round Robin,' was as much a surprise to the War Department as the information it contained, made known through the 'Round Robin' and the other letter, was to the country. Nor was it then known, that within an hour after the receipt of the alarming news respecting the condition of the Santiago troops, conveyed by General Shafter's cablegram and before the receipt of the 'Round Robin,' that army was ordered to return to the United States at once. A wave of indignation, caused by a misapprehension, swept over the United States, and every act of the War Department was interpreted from this distorted point of view. In its psychological aspects, this universal hysteria was not unlike other incidents in the history of our country, wherein public sentiment smothers reason and loose opinion runs riot. Approximately 22,000 men reached Montauk from Cuba, and of this number probably 20,000 were invalids or convalescents—sick, enfeebled or emaciated by the ruthless ravages of the Cuban malarial or yellow fever. The sight of these noble men thus returning, after their signal victories on a foreign soil, was indeed disheartening, and one never before witnessed by citizens of this country. Without stopping to analyze the causes, their condition was forthwith charged to the War Department. The truth did not prevail, because it could not secure a hearing. Camp Wikoff was thrown open to the public and here flocked kind hearted men and women to serve the troops and incidentally express their horror at the condition of the soldiers, of the camp and of its management. Most of these persons had never before seen a military camp; none of them had ever before seen an army returning from a campaign in the tropics; and none had ever before inspected a field hospital in time of war and while filled with the sick."

The author refers to the trying problems of appeals from parents and friends for furloughs for men still convalescent, and the number of cases in which men, under these appeals, permitted to leave the camp hospitals before recovery, suffered relapses, and in many cases died in their homes, as a result. He quotes the testimony of many prominent citizens, who had been most emphatic in their complaints and criticisms, as having admitted before the War Investigation Commission, that their complaints were based on newspaper articles and rumors. The records show that at this camp of ten days' preparation, at which

20,000 men were received sick within 30 days, but 126 died, and that predictions of the spread of a typhoid or other epidemic, were unfulfilled. Testimony taken by the War Investigation Commission, is quoted to show a determined and concerted effort on the part of certain newspapers, to misstate facts and discredit the efforts of the supply bureaus of the War Department.

In returning to the camps of mobilization and instruction, an instance is cited of one regiment, camping on the Fair Grounds in its own State, which had in August 602 on the sick report, 260 of which cases were typhoid fever. With but half as many volunteers as Regulars in the 5th Corps with Shafter, the number of deaths from disease was about the same. The death rate per 1000 in the United States was, Regulars 17.43, and volunteers 26.67.

The concluding chapter contains a *résumé* of the conditions of unpreparedness, comparisons with the outcome of military expeditions of Europeans into the tropics, in times past, and closes as follows :

"Despite the total lack of preparation ; despite the failure of the militia to meet expectations in the matter of equipment ; despite the inertia of the supply bureaus of the War Department, resulting from thirty-three years of peace ; despite the necessity of embarking an expedition to tropical islands of the Atlantic and Pacific, with no provisions at the outset for doing so,—notwithstanding these great and new problems, the line and staff of the Regular army, and the eager volunteers, accomplished what it is no vain boast to claim, could not have been done by any other nation on the face of the earth, under the same circumstances. All honor for the completeness and celerity of our victory over the Kingdom of Spain belongs to the people of the United States, for the American soldier and the American sailor is but the American citizen in uniform."

There appears to run through this entire work, a current of resentment not unnatural in a man who, under trying circumstances, feels and believes he has done his full duty, at great personal labor and sacrifice, to be met only with harsh and undeserved criticism.

It is unfortunately the case, as interfering with the conduct of military operations, but nevertheless absolutely true and a truth to be reckoned with, that war, being an abnormal and abhorrent condition, sets the passions and minds of men on edge and renders them incapable of judging calmly of circumstances as they exist at the time. This is particularly so in a non-military country, with a warm-hearted, impulsively sympathetic people such as ours, so that when our fathers, brothers or sons are suffering, we are frantic until we can afford them relief.

Fortunately, the smoke of conflict passes, history records the real facts, justice is done all and there shine out in the clear light only the disinterested stand of a free people for humanity, the rousing of the giant, the lightning stroke of battle, the sacrifices for the glory of the flag, the peace which leaves us a world-power, with the consequent responsibilities to the future.

All else is forgotten.

EDWARD E. BRITTON,

Colonel, A. A. A. G. 2d Brig. N. G. N. Y.

Israel Putnam.*

This is Volume IV of G. P. Putnam's Sons, American Men of Energy series. It is well printed, well bound, and elaborately illustrated. The frontispiece, a picture of General Putnam, shows a pleasant, clean shaven face, regular features and the square, firm set jaw which proclaimed the character of the man.

* *Israel Putnam*. By William Farrand Livingston. G. P. Putnam's Sons, N. Y.

This life of Putnam has for its background a concise history of the stirring times in which he lived. The author has evidently searched far and wide for his material, and has accepted only what he considered well established fact. He therefore gives us a comprehensible picture of the grand old hero. One cannot help accepting it. And yet, if he has had extensive battle experience, and knows how little men in the ranks, and even company officers, know about occurrences in the line of battle beyond their immediate vicinity, he will hesitate before accepting soldiers' letters at their face value.

After a battle hundreds of soldiers write home, and their letters turn up generations afterwards, perhaps, and find a place in history. As a matter of fact, nine-tenths of the stories they contain were picked up around the camp fire, where very plausible falsehoods are manufactured in a really wonderful way. Recent letters from the Philippines are modern samples of camp fire veracity, and it would be unsafe to assume that our forefathers were deficient in that kind of imagination.

The boyhood of a hero is always an interesting study, and Putnam's boyhood is no exception. Perhaps his celebrated wolf hunt (12) was a clearer revelation of his character than anything that occurred in his early life. The spirit that carried him into the wolf's den carried him through the dangers and difficulties of his military career.

Putnam's military education was of the practical kind. The camp and the battle-field were his academies, and as Indians were among his earlier adversaries, he soon learned their ways and became an excellent and successful scout. He was first commissioned as a 2d Lieut. during what is called the "French Indian" War (20) and greatly distinguished himself in the battle of Lake George (22).

The attack upon Fort Ticonderoga reads like a chapter in the history of the South African War. One cannot help admiring the courage of the assailants while condemning the recklessness which sacrificed so many splendid soldiers in a hopeless undertaking.

Putnam's experiences as a prisoner in the hands of savages, and his almost miraculous escape from death and torture, if related by a novelist as having occurred to the hero of his imagination, would be condemned as overdrawn and impossible. When one finds them recorded in history as matters of fact, he is apt to exclaim in the language of General Sherman, "War is Hell."

The conquest of Canada although abounding in most of the hardships and some of the horrors of war, was tame in comparison with Putnam's previous experience. Still it constituted an important part of his military education. The power to command is God's gift. The methods of its application are acquired by experience.

In the expedition against Havana Putnam had the opportunity of learning a new chapter in the horrors of war. The wounded in any great battle have to endure untold suffering; but when deadly disease steps in, and kills five for the enemy's one, the suffering becomes almost unbearable.

Putnam was a born soldier. The hardships and horrors he had seen and suffered seemed to increase his love for a soldier's life. One is not surprised therefore to find him up in arms at the first rumor of an occasion therefor. There seems to have been sleeping in the brain of him and his forefathers for many generations, a strong conviction that the British government was the natural enemy of civil and religious liberty. Perhaps that strong conviction

drove the "Putenhams" out of England. At any rate, a rumor which reached Putnam that the British were bombarding Boston needed no confirmation so far as he was concerned. He immediately donned his "war paint," and practically called out the militia of his State (183). Of course, the rumor was false, and Putnam was disappointed.

The picture of Putnam at the battle of Bunker Hill as delineated by this author, is not easily understood. The question, "Who commanded at Bunker Hill?" has never been satisfactorily answered. Putnam undoubtedly was the controlling spirit, wherever he happened to be, until panic appeared among the troops. Then he seems to have lost control. He tried to rally the fugitives at the "Rail fence" and failed. (238.) One naturally asks why? His influence over the men was great. They admired his superb courage. But the rail fence proposition shook their confidence in his judgment. The position was untenable. And so they disregarded Putnam's commands. They could see, and Putnam ought to have seen, that it would be madness to try to hold it. And so they went on. That they were not demoralized is proved by the fact that they were easily rallied at Prospect Hill. Prospect Hill could be defended.

At the battle of Long Island somebody blundered. Who the somebody was is a disputed question. The American position covering Brooklyn had been taken up by General Sullivan, who commanded a small force. There was no enemy on Long Island when Sullivan laid out his lines. He closed every pass in front of his position with appropriate works, but Jamaica Pass, by which an enemy might turn his left, was not fortified. Perhaps he had not men enough to occupy it.

When the British army appeared on Long Island, large reinforcements were sent over to strengthen the lines covering Brooklyn and Putnam took command. Putnam must have reconnoitred his front, and failed to appreciate the danger of Jamaica Pass. At any rate, he made no adequate provision for its defense. Therefore, according to military rules, Putnam is responsible for the oversight and its consequences.

Putnam has been so eulogized by history and tradition that one hesitates to suggest that there was a limit, and a narrow one, to his capacity as a commander. A man may be a capital commander of a brigade and an utter failure as the independent commander of an army of two brigades. Very few commanders can handle 100,000 men so as to get maximum results out of them. Putnam's limit seems to have been a brigade. He could command nothing beyond the range of his vision. Moreover, in emergencies his judgment was smothered by his courage. This was apparent at Bunker Hill, and again in withdrawing from New York City. (309.) In both cases his men disregarded his commands. There are no better judges of a commander's character than the men in the ranks. Putnam was too courageous. In moments of great danger his only expedient was fight. It seems ungracious to find fault with such a spirit; but when a man is entrusted with precious lives it is sinful to throw them away. Brave men should not be sacrificed.

From this time forward Putnam's influence began to wane. Brave and beligerent as ever, his rank brought him into command beyond his capacity. Washington began to have misgivings about him. He had been assigned to command at West Point and did not seem to be equal to the position (369). Public opinion in New York turned against him. Washington would not willingly offend the old hero; but he hoped that the Court of Enquiry ordered by

the Congress to investigate the loss of Forts Montgomery and Clinton, might find something that would justify removal (374). But the court found in Putnam's favor, and Washington had an elephant on his hand. At last he solved the problem by assigning Putnam to recruiting duty in Connecticut. He remained on that duty until December, 1779, when his military career was finally closed by a stroke of paralysis.

Being laid up in ordinary by that stroke from which he never fully recovered he passed his remaining days in peace, and died peacefully, "calm and resigned" (411) on the 29th of May, 1790.

The author and publishers have supplied a much needed historical want. The traditions and legends about General Putnam had grown and multiplied to such an extent, that a sifting operation was absolutely necessary if the General's history was to be rescued from the region of myth. A second sifting might be beneficial. Soldiers' letters, as already said, are not first-class evidence.

JAMES CHESTER,

Major of Arty. Retired.

PUTNAM'S REPREHENSIBLE LOOP.

(It is now claimed that Gen. Israel Putnam never made his historic ride down the stone steps, but that he took a roundabout course through a hidden lane.)

They've knocked the pins from under good old Jonah and the whale;
They've proved he never took that thrilling inside way to sail;
They've shown by facts and figures that fair Helen and the horse
Did not affect the Trojans with some sad and sore remorse;
And now they rise to taunt us with derisive jeer and whoop—
They say that good old Putnam made the biggest kind of loop!

They say he never galloped down the famous stairs of stone;
That if he had he must have most infallibly been thrown;
And, anyway, he wasn't there; and, if he was, beside,
He couldn't take the flying trip—he had no horse to ride;
And, furthermore, to history each schoolboy is a dupe
Because, instead of jumping stairs, old "Put" just looped the loop.

Goodbye to "Put"; he's gone 'way back with Jonah to sit down;
Along with Molly Pitcher, who ne'er tucked her woolen gown
And fired the noisy cannon at the Britisher dragoons;
He's gone to join the story of Ben Butler and the spoons;
Take Putnam from the Hall of Fame and pitch him off the stoop;
They've proved by diagram and chart he only looped the loop.

—*Josh Wink in the Baltimore American.*

Journal of the Military Surgeons.

Number 1, of Volume X of the Journal of the Association of Military Surgeons (pp. xxviii-224), marks a departure in the records of that organization. The nine handsome annuals of the society contain valuable military material nowhere else accessible, and hereafter, owing to the growth of the organization, the proceedings will be issued in the form of a quarterly magazine. This is believed to be the first periodical in the English language devoted to this special line of work.

This number contains the interesting proceedings of the last annual meeting, and what seems somewhat unusual, a nominal list of the supporters of the magazine. The new regimental field equipment is the subject of an excellent illustration, but the statement in the discussion on tentage that the last war proved

the necessity for regimental hospitals is not believed to represent the opinion of the most progressive medical officers. We also note that in spite of its military title the doctors of the Marine Hospital Service are admitted to full membership, and that the names of several estimable ladies adorn its rolls.

Among the original articles is one of especial interest on "Observations in China and in the Tropics on the Army Ration and the Post Exchange" by Major Seaman. In the discussion, Colonel Grant remarked "I think the underlying principles of the W. C. T. U. are based on the very best motives, and if we can convince them" when he was interrupted by General Byers with "You can't do it; I live with one of them." The association on formal motion then unanimously endorsed the canteen.

The magazine is well arranged, is creditable typographically, and reflects credit upon its editor. Anything that may aid in providing medical officers for use in time of need, fulfills a most useful purpose, and is a welcome addition to military journalism. In this connection the editorial utterance of our French contemporary is apropos:

"Le Caducée bien loin de vouloir faire concurrence à ses aînés, les organes officiels, se propose, au contraire, de vulgariser et de répandre les richesses qui s'y entassent loin des regards du public médical; il sera donc, non pas leur rival, mais leur complément, et, en quelque sorte, leur prolongement."

AMBULANCE.

Awaiting Review.

"Reports on Military Operations in South Africa and China." A. G. O. July, 1901.

"Reflections on the Art of War." London, William Clowes & Sons, Ltd., 1901.

"Report of the Proceedings of the Society of the Army of the Tennessee." Cincinnati Press of F. W. Freeman, 1901.

"The Battle of Pell's Point (or Pelham), October 18, 1776." New York, William Abbatt, 1901.

"Handbook, Philippines Constabulary."

"Official Crests of the British Army" London, Gale & Polden, Ltd., 1901.

"Photographic Album of the Woolwich District and the Royal Military Academy." London, Gale & Polden, Ltd., 1901.

"Photographic Views of Eton College." London, Gale & Polden, Ltd., 1901.

"Transactions of the American Institute of Mining Engineers." New York, 1901.

"Official Register of the United States," Legislative, Executive and Judicial. Vol. 1, 1901. Washington, Government Printing Office.

The Military Service Institution.

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WOODRUFF, CARLE A., Col., Artillery Corps.

Term ending 1905.

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WILLIAMS, J. R., Capt., Artillery Corps.

Term ending 1903.

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Branches

were established at West Point, Fort Leavenworth and Vancouver Barracks.

Membership dates from the first day of the calendar year in which the "application" is made, unless such application is made after October 1st, when the membership dates from the first day of the next calendar year.

Initiation fee and dues for first year \$2.50; the same amount annually for five years subsequently. After that two dollars per year. This includes the Journal. Life membership \$50.

NOTE.—Checks and Money Orders should be drawn to order of, and addressed to, "The Treasurer Military Service Institution," Governor's Island, New York Harbor. Yearly dues include Journal.

Please advise promptly of changes of address.



Gold Medal—1902.

First Prize—Gold Medal, \$100 and Life Membership.

Second Prize—Silver Medal, Honorable Mention and \$50.

I.—The following Resolution of Council is published for the information of all concerned :

Resolved, That a Prize of a Gold Medal, together with \$100 and a Certificate of Life Membership, be offered annually by THE MILITARY SERVICE INSTITUTION OF THE UNITED STATES for the best essay on a military topic of current interest, the subject to be selected by the Executive Council, and a Silver Medal and \$50 to the first honorably mentioned essay. The Prizes will be awarded under the following conditions :

1. Competition to be open to all persons eligible to membership.
2. Each competitor shall send three copies of his Essay in a sealed envelope to reach the Secretary *on or before January 1, 1903*. The Essay must be strictly anonymous, but the author shall adopt some *nom de plume* and sign the same to the Essay, followed by a figure corresponding with the number of pages of MS.; a sealed envelope bearing the *nom de plume* on the outside, and enclosing full name and address, should accompany the Essay. This envelope to be opened in the presence of the Council after the decision of the Board of Award has been received.

3. The prize shall be awarded upon the recommendation of a Board consisting of three suitable persons chosen by the Executive Council, who will be requested to designate *the Essay deemed worthy of the prize*; and also in their order of merit those deserving of honorable mention.

In determining the essay worthy of the prize, the Board will be requested to consider its professional excellence, usefulness and valuable originality, as of the first importance, and its literary merit as of the second importance. Should members of the Board determine that no essay is worthy of the prize, they may designate one or more essays simply as of honorable mention; in either case, they will be requested to designate one essay as first honorable mention. Should the Board deem proper, it may recommend neither prize nor honorable mention. Should it be so desired, the recommendation of individual members will be considered as confidential by the Council.

4. The successful Essay shall be published in the Journal of the Institution, and the Essays deemed worthy of honorable mention shall be read before the Institution, or published, at the discretion of the Council.

5. Essays must not exceed twenty thousand words, or fifty pages of the size and style of the JOURNAL (exclusive of tables).

II.—The Subject selected by the Council at a meeting held November 8, 1901, for the Prize Essay of 1902, is

"THE ORGANIZATION AND FUNCTIONS OF A
BUREAU OF MILITARY INTELLIGENCE."

III.—The gentlemen chosen by the Council to constitute the Board of Award for the year 1902 are :

MAJOR GENERAL E. S. OTIS, U. S. A.

BRIG. GENERAL A. E. BATES, U. S. A.

COL. H. C. HASBROUCK, ARTILLERY CORPS.

GOVERNOR'S ISLAND, N. Y.
Jan 1, 1902.

T. F. RODENBOUGH,
Secretary.

Hancock and Fry Prizes.

Extract from the Minutes of a stated Meeting of the Executive Council of the Military Service Institution of the United States, Major General Brooke, V. P., in the Chair, held at Governor's Island, N. Y. H., September 13, 1901.

* * *

Resolved, That the report of the special committee of which Major W. M. Black, Corps of Engineers, is Chairman, be and it is accepted and adopted and the Secretary is instructed to cause a copy of the Report to be published * * for the information and guidance of all concerned.

Report of the Committee.

"The Committee to which the propositions for the establishment of additional prizes for papers upon military subjects of current interest were referred, reports as follows:

* * *

"*Second*. After due consideration of the other proposition the Committee recommends that with a view to encourage contributions to the Journal of the Institution, and expert discussion upon matters of current interest affecting the welfare of the military service, two new prizes be created, to be named the Hancock and Fry prizes, respectively, in grateful remembrance of the first President of the Institution and of one of its founders.

* * *

"*C. Hancock Prize*, \$50, and Certificate of Award and \$25, and Certificate of Award, to be given for the best and second best original essays or papers, the awards to be made under existing regulations for the Gold Medal, excepting that the papers shall contain not less than 5000 words nor more than 10,000 words, and that but one copy of each paper shall be required from the author; said essays to be critical, descriptive, or suggestive, on subjects directly affecting the military service, which have been published in the Journal of the Institution during the six months ending April 30 of each year and which have not been contributed in whole or in part to any other association, nor have appeared in print prior to their publication by the Institution, nor have been published in the Journal in any previous year, and excluding essays for which another prize has been awarded. The certificate of award to be signed by the President and Secretary of the Institution and the award to be made by a committee of three members of the Institution, not members of the Executive Council, to be appointed semi-annually by the President; the award to be made and announced not later than June 30 of each year.

"*D. Fry Prize*, to be the same as the Hancock prize and awarded under the same regulations for papers or essays appearing in the Journal during the six months ending September 30 of each year, with the announcement not later than November 30.

"*Third*. It is further recommended that to better fulfill one of the objects for which the Institution was founded, as stated in General Fry's paper in Vol. I, No. 1, of the Journal, viz., the discussion of questions of army reform, a special effort be made to secure from officers of experience short expressions of opinion as to the needs of the service and as to what can be done for the advancement of its best interests. To make such discussions of value, criticisms of existing methods must and should be made, and these should be full and free, avoiding all personalities or criticisms of individuals. To this end the published papers should or should not bear the signature of the writers as may be desired by them, their names however being known to the Publication Committee."

* * *

T. F. RODENBOUGH, *Secretary*.



The Seaman Prize.

MAJOR LOUIS L. SEAMAN, M. D., LL. B. (late Surgeon, 1st U. S. Volunteer Engineers), has founded a prize in the MILITARY SERVICE INSTITUTION OF THE UNITED STATES, by contributing annually

One=hundred dollars in Gold

for the best Essay, subject to be named by himself, and to be approved by the Executive Council.

The subject proposed and adopted for 1902 is :

"THE TREATMENT AND PREVENTION OF TROPICAL DISEASES BASED UPON THE OBSERVATIONS OF AMERICAN ARMY MEDICAL OFFICERS."

The competition is open to all Officers or ex-Officers in good standing, of the Regular or Volunteer Service of the U. S. Army.

Three copies of the Papers on the subject must be submitted to the Secretary of the Institution, to reach his office not later than Nov. 1, 1902. Each Essay must be limited to 15,000 words, exclusive of statistics.

All other conditions will apply as those connected with the Annual Military Service Institution Gold Medal Prize.

The gentlemen chosen by the Council to constitute the Board of Award for the year 1902, are :—

COLONEL C. R. GREENLEAF, LIEUT.-COL. VALERY HAVARD,
and MAJOR JOHN VAN R. HOFF; all of the Medical
Department, U. S. A.

GOVERNOR'S ISLAND, N. Y.
Jan. 1, 1902.

T. F. RODENBOUGH,
Secretary.

Members are particularly requested to
read this Notice.

Amendment to the Constitution.

NOTICE TO MEMBERS.—At a meeting of the Executive Council of the Military Service Institution, held September 13, 1901, Major General Brooke, V. P., in the Chair, the following amendments to the Constitution were proposed and are here submitted for the action of the members of the Institution. In lieu of more formal ballots each member voting is requested to note his action on a postal card thus :

ON ART. IV AND V CONST.
I vote.....*
(Signature).....
" Yes " or " No "

and mail it *on or before March 1, 1902*, to "The Secretary, M. S. I., Governor's Island, N. Y. H."

PROPOSED AMENDMENTS. *

ARTICLE IV.—MEMBERSHIP.

(To read as follows.)

Sec. 3. Officers of the U. S. Navy and Marine Corps shall be entitled to membership of the Institution without ballot upon payment of the entrance fee, but shall not be entitled to vote nor be eligible to office [*except as hereinafter provided.*]

ARTICLE V.—GOVERNMENT.

Sec. 2. The ex-officers of the Regular Army, [*the officers of the Navy and Marine Corps*] who are members and the officers of the National Guard who are Associate Members of the Military Service Institution shall each have one representative in the Executive Council.

T. F. RODENBOUGH,
Secretary.

*The words in italics and brackets are new.